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ABSTRACT

This annotated bibliography is the ninth in the Doctoral Research Series. It encompasses doctoral research on special programs and their effects on minority children and youth reported in "Dissertation Abstracts International" from 1965 through June 1973. The citations are arranged in the following categories: early childhood (Head Start, Follow Through, other preschool and primary programs), family and community influence (the achievement of students, other studies), school achievement, and other studies. Within each category, the abstracts are presented in order of year of completion. The abstracts have also been cross-referenced in a subject index, and author and institution indexes are provided. (JM)

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SPECIAL PROGRAMS AND THEIR EFFECTS ON MINORITY CHILDREN AND YOUTH

AN ANNOTATED BIBLIOGRAPHY OF DOCTORAL DISSERTATIONS

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PREFACE

The ten years since the enactment of ESEA Title I in 1965 have provided a unique opportunity for anthropologists, sociologists, political scientists, educators, and others to attempt to find answers to unanswered questions about the teaching-learning process, especially in relation to minority group children and youth and students from low socioeconomic backgrounds. Not only did the law provide extensive funds for compensatory education and innovative programs, but it also mandated evaluation of these programs. This flood of new programs provided fertile grounds for doctoral dissertation research on the education of minority populations.

The ERIC/CUE* staff, believing that much could be learned about doctoral research itself, children, and educational programs, decided to attempt to provide comprehensive collections of doctoral dissertation abstracts in those areas of special interest to the Clearinghouse. This document is one in this series of publications entitled the ERIC/CUE Doctoral Research Series.

Both a computer search, using the Datrix system of University Microfilms, and a supplementary manual search were done on Dissertation Abstracts International from 1965 through 1973. The subject terms which were used are: black, Puerto Rican, Mexican American, inner city, ghetto, urban, slum, rural, Negro, American Indian, disadvantaged, desegregation, Spanish surname.

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Over 700 abstracts were identified and sorted for the various bibliographies. Since indexing in Dissertation Abstracts International is based solely on words appearing in the titles, some relevant material may not have been uncovered in the search process.

The Clearinghouse would like to be informed of any appropriate dissertations, old or new, which do not appear in these bibliographies.

Dissertations are available in microfilm and paper copy from University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106. Order numbers have been provided for each dissertation at the end of the citation. Please contact University Microfilms for current prices. Dissertations also may frequently be borrowed on inter-library loan from sponsoring universities.

The abstracts in each bibliography have been organized under various topics. Within each topic, the abstracts are presented in order of year of completion. The abstracts have also been cross-referenced in a subject index. Author and institution indexes appear in each bibliography, as well.

In the interest of objectivity and comprehension, all appropriate dissertations have been included, even though they may present conflicting views, and do not necessarily represent the Clearinghouse's policy or position.

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Other bibliographies in this series are:

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Dropouts: An Annotated Bibliography of Doctoral Dissertations. 126p. ED 096 362 (MF-$0.94; HC-$7.31)

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Early Childhood
Head Start

1. Callahan, Orel Duane. Student Achievement as Related to the Teacher Role, Student Role and Their Interface. Western Michigan University, 1971. 151p. 72-19,032

The research reported herein investigated the relationship between early educational success among disadvantaged children participating in compensatory education programs and the type of role expectations priorities held by their teachers. Educational success, as used in this study, refers to levels of performance on general I.Q. tests standardized for the age group studied. Role expectation priorities refers to differential emphases on alternative goals or objectives for both the student and teacher roles. Specifically, in the case of the student role, it refers to the differential priorities held by teachers for the alternative student role goals of physical maturation, social adjustment, attitudinal development, and academic skills development. In the case of the teacher role, it refers to the differential priorities held by teachers for the alternative teacher role goals or facilitator of student role development of intervenor in and modifier of student role development. In addition, the association between student achievement and different configurations of student and teacher role-expectation priorities in interaction was investigated. Conceptually, this configuration was defined as role-interface or that dynamic area of interpersonal role interaction where in the expectational content of one role influences the form and communication of expectations content for another role thereby effecting, it was hypothesized performance in the latter role.

Data for the research were gathered from 174 kindergarten students in a midwestern school district and their teachers. The students were randomly selected from a population of 1,000 students in the district who came from families which, according to Office of Economic Opportunity criteria, were disadvantaged. Meeting the Office of Economic Opportunity standards made the children of families eligible for participation in experimental compensatory education programs. Of the 174 students participating in this investigation, approximately 145 had participated in such programs. The remainder of the children were drawn from a control pool of eligible children who did not participate in any compensatory education programs.

Findings indicate that, contrary to earlier research, substantial and statistically significant improvements in academic achievement are possible for disadvantaged children. Longitudinal findings over three years indicate both significant and stable gains among children participating in a selected year long head start curriculum. Further, different patterns of teacher expectations priorities for the student role were found to be significant correlates of levels of student achievement. In particular, it was found that emphasis on physical development and social adjustment were associated with lower levels of student achievement while a pattern of emphasis on attitudinal and skill development was associated with the highest observed levels of achievement. Additional findings indicated the need to further refine the dimensions and measurement of dimensions of the variables of both teacher expectations for the teacher role and the variable of interface. Despite this observed need for refinement of the variables, however, significant associations between them and levels of student achievement were not observed.

Findings definitely indicate both the theoretical and pragmatic efficacy of further research directed toward dileneating the structure of expectations for roles and the association of those expectations with adequacy of acquisition of the roles.

2. Evans, Sheila. The Relationship of Alternative Types of Preschool Intervention to Second-Grade Reading Achievement and Ratings of Behavior. New York University, 1972. 127p. 72-26,591.

Growing criticism of the American educational system, especially for disadvantaged children, has led to the emergence of preschool intervention programs. This study evaluated the effect of four channels of entry into the public schools in terms of reading achievement, as measured by second-grade reading scores on the Metropolitan Achievement Test and of personal-social behavior, as determined by teachers' ratings in the second grade. The channels of entry studied were: (1) one year of participation in Head Start programs and one year of public school kindergarten; (2) two years of participation in Day Care programs and no public school kindergarten; (3) three years of participation in Day Care programs and no public school kindergarten, and (4) one year of public school kindergarten only (a Comparison Group).

To compare the effectiveness of the four channels of entry, four groups of thirty subjects each were selected from among children in the New York City public schools who speak English as a native language and who live in public housing projects. The sample was drawn from twenty-six elementary schools in Manhattan, the Bronx, and Brooklyn, during 1970-71. The reading scores of these children on the Metropolitan Achievement Test and their personal-social behavior ratings at the end of the second grade were analyzed by means of analyses of variance.

No significant differences were found among the groups with respect to personal-social behavior ratings. The analysis of variance of reading scores of all four groups (three Experimental and one Comparison) and the three Experimental Groups (without the Comparison), revealed that the variance associated with channel of entry into the first grade was significant at the .05 level of confidence.

Further analysis indicated that the mean reading achievement score of the Head Start group (3.4) was significantly higher than the score of the two-year Day Care group (2.8) and the three-year Day Care group (2.9).

The mean reading scores for all three groups were considerably higher than the average score (2.5) of the twenty-six schools from which the sample was drawn, and as high or higher than the national reading norm (2.8). The mean score of the Comparison Group was relatively high (3.3), but further examination disclosed a bias toward high achievers because the sampling procedure drew them from a higher track, and the group was deemed inadequate as a normative group. These findings were discussed.

Within these sampling limitations the findings indicated (1) that children who enter the first grade with one year of Head Start experience plus public school kindergarten have higher reading achievement scores at the end of the second grade than do children who enter with two or three years of Day Care experience and no public school kindergarten, and (2) that the programs provide comparable personal-social behavior experiences for second-grade children.

Given the superior reading performance of the children from preschool programs over those in the sample schools and in the national norm, it may be concluded that continued confidence in early intervention for children from low-income families is merited.

3. Hosey, Harold Roy. Cognitive and Affective Growth of Elementary School Students Who Participated in Summer Head Start. Oklahoma State University, 1972. 77p. 73-15,145.

The purpose of this study was to compare the long-range cognitive and affective growth of two groups of disadvantaged children in Dodge City Unified School District No. 443, Dodge City, Kansas. One of the groups consisted of pupils who participated in a 1966 Head Start summer program. The other group was composed of children who were eligible to attend a 1965 Head Start program, but did not participate because the school district did not conduct a program. The study consisted of twenty-three students referred to as Head Start Participants and twenty-four students referred to as Head Start Eligibles. Both major groups included children from three ethnic subgroups: Afro-American, Mexican-American, and Anglo-American.

The research design for the evaluation of cognitive and affective growth included the testing of the pupils with three standardized instruments. The Stanford Achievement Test, Intermediate I Battery; the Kuhlmann-Finch Intelligence Tests, Level II; and the Piers-Harris Children's Self Concept Scale. Test results and other relevant information were obtained from the school cumulative record cards of each pupil. Five hypotheses were formulated and investigated through the use of suitably selected statistical techniques.

FINDINGS AND CONCLUSIONS: The group of children who had attended the Head Start summer program did not score significantly higher than the comparable group without Head Start training in intelligence, academic achievement, and self concept measurement. The attendance records revealed no significant difference between the Head Start Participants and the Head Start Eligibles.

The percentage of pupils who were retained in grades kindergarten through four was lower among the group of children who attended the Head Start summer progrm. Eighteen percent of the pupils who did participate in the Head Start program were retained, compared to thirty percent of the pupils who had not attended the program. The difference in these proportions was not statistically significant.

Analysis of the scores of the two major groups on the Stanford Achievement Tests revealed no significant differences. Comparison of the battery scores indicated that the Head Start group scored higher than the pupils who had not attended the Head Start program on three of the tests: word meaning, arithmetic application, and social studies. Both groups scored the same on the paragraph meaning and spelling skills. The non Head Start children scored slightly higher on the language skills. There was, however, no significant difference between the scores of the two major groups on the six test areas studied.

The Kuhlmann-Finch Intelligence Tests revealed no significant differences between the Head Start Participants and the Head Start Eligibles. The mean intelligent quotient for the pupils who attended the Head Start program was 98.7 compared with 100.0 for the group that did not participate in the program.

Analysis of the Piers-Harris Children's Self Concept Scale did not reveal a significant difference between the two major groups.

4. Johnson, Mary Kathleen. Social Studies Classification Performance of Kindergarten Children from Differing Socio-Economic Backgrounds. The Florida State University, 1972. 105p. Major Professor: Nancy J. Douglas. 73-193.

The changes that have taken place in our society and the increases in the amount of knowledge have raised anew questions of what to teach children. Social studies instruction can and should make even the young child aware of social problems and their possible solutions.

Social studies classification is pertinent to reducing stereotyped thinking in the young child. Classifying in the social studies also provides the child with a much broader range of information about social events.

This particular investigation was designed to determine any differences existing between the social studies classification performances of two groups of middle class, private school kindergartens and those of two Head Start classes.

Answers to the following questions were sought concerning social studies performance classification in the kindergarten:
1. Would socio-economic background make a difference?
2. Would age make a difference? 3. Would sex make a difference?
4. Would there be interactions among socio-economic background, age, and sex combinations which would make a difference?

The methods for presenting and the criteria for scoring the social studies classification performances were suggested by the work of Irvin Sigel (1964-1972) on the development of classificatory skills in young children.

Sigel's method of classification is as follows: 1. Descriptive: grouping by form, color or structure. 2. Relational-Contextual: grouping on the basis of interdependence. 3. Categorical-Inferential: grouping photographs according to class.

The sample selection permitted control of three variables: age, sex and socio-economic background. No effort, however, was made to control ethnic or racial membership in either of the socio-economic groups. All but three of the children in the Head Start Centers were black and all of the children in the private kindergartens were white.

The measurement of the children's performance in classifying was determined by specific performances on identification of ten groups of colored photographs.

Each group contained five photographs which were carefully planned, filmed and selected for the classification performances.

The content of the social studies classification performances was derived from themes commonly used with young children in social studies units-homes, families, animals, ecology, transportation and work activities.

A three-way analysis of variance was run by a statistician at Jacksonville University. The statistician used Jacksonville University's Remote Terminal 2741 of the University of Florida's I.B.M. 360 Computer. The data was analyzed to determine any differences existing between the social studies classification performances of the two socio-economic groups of children. A three-way analysis of variance was used. This technique enabled the investigator to determine not only any differences existing between middle and lower socio-economic groups, but also differences existing between children who were four years old by December 31, 1971 and those who were five years old by December 31, 1971 as well as differences between male children and female children.

The investigator, using such an analysis of variance, was able to study not only the three main effects of class, age and sex but also the resulting four interactions: class-age, class-sex, sex-age, and class-sex-age.

It seems clear that more planning and organization is necessary for the social studies curriculum in the kindergarten. The mere fact that children are exposed to many so-called enrichment experiences does not greatly insure success with classification skills. A logical, meaningful sequence of enrichment experiences could be a powerful influence related to the total social studies curriculum.

Such experiences need to be more carefully identified and examined as to their opportune entrance into the social studies curriculum.

5. Matthias, Margaret Wiseman. Development and Evaluation of a Supplementary Language Program for Head Start Children. Southern Illinois University, 1972. 191p. Major Professor: Dr. Rebecca Baker. 72-28,544.

The specific purposes of this study were as follows:

1. To provide a rationale for the development of a language program designed to supplement the language learning of children of the poor.
2. To determine whether participation in such a language program could produce significantly greater gains on selected criterion measures than participation in a program of individualized attention alone.
3. To determine whether participation in such a language program could produce greater gains on the criterion measures than participation in a traditional preschool program alone.

The emphasis in the development of the language program in this study is not on centent but on a communication style which can be transferred easily to any variety of language situations. One of the bases for this particular direction in program design is the belief that the most debilitating aspect of poverty is not a state of economic wealth or lack of it but rather a lack of understanding of the full role of language and communication in making available a world of vicarious experiences and a means of understanding the world of those experiences. The objective was to develop a style of communication which would supplement the communication style believed to be present in the home of the disadvantaged child. No attempt was made during the training period to correct or change the established language patterns of the children.

In order to test the success of the program a sample of youngsters eligible for entrance into Head Start, and therefore fulfilling the criteria of poverty as described by the Office of Economic Opportunity, were assigned to three treatment groups.

T_1 Subjects participating in Head Start and receiving ten minutes daily individual attention from college students instructed in the language program.

T_2 Subjects participating in Head Start and receiving ten minutes individual attention from college students instructed to initiate spontaneous conversation.

T_3 Subjects participating in Head Start alone without additional attention of college students.

During the two weeks preceding the treatment period, four subtests of the Illinois Test of Psycholinguistic Abilities and the Peabody Picture Vocabulary Test were administered as measures of receptive and expressive language. Post tests were administered immediately following the completion of the eight week treatment period.

The analysis of convariance procedure was used to compare mean effects of treatment on the chosen criterion measures. An alpha level of .05 was set for rejection or acceptance of hypothesis. Significantly greater mean effects were found in comparing T_1 and T_2 on the Auditory Reception and Visual subtests of the ITPA. Anticipated directionality was found in analysis of data on all criterion measures for T_1 and T_2 though not to a degree significant at the preset alpha level of .05.

The analysis of data comparing T_1 and T_3 on all criterion measures produced no significantly greater mean effects in favor of T_1 though anticipated directionality was observed on four of the measures.

6. Mowles, Cynthia Elizabeth. A Study of Letter Naming Skills in Disadvantaged Five Year Olds. Boston University School of Education, 1972. 194p. Major Professor: Ellen Winkelstein. 72-25,453.

The purpose of this study was to determine the effect of a systematic approach to the teaching of letter names on a group of disadvantaged five-year-olds.

A random sample of twelve Head Start classrooms was drawn from a population of all the Year Round Head Start classrooms in New Hampshire. Six of these classrooms were randomly assigned to Treatment I, the "formal" treatment and six were randomly assigned to Treatment II the "informal" treatment.

A program, the Letter Naming Curriculum, was developed for use in the Treatment I classes. The purpose of this program was to present a series of lessons and activities designed to teach letter names systematically. The program for each week consisted to two twenty minute periods. The first period was scheduled during the first half of the week and included a ten minute lesson which introduced and directly taught two new letters followed by a ten minute activity using these letters. The second period occurring later in the week consisted of a ten minute lesson and a ten minute activity which reviewed all of the letters introduced up to that point in the program. The program lasted for thirteen weeks.

The program for Treatment II classes used only the activity materials provided in Treatment I. The activities for each week were make available all that week for "free" use by the subjects. The intent of this treatment was to determine whether, given the same materials without direct teaching, there would be letter learning. No other letter naming programs were used in these classes.

Subjects in Treatment I were tested weekly on their letter naming knowledge. Subjects in Treatment II were tested quarterly on their letter naming knowledge. All subjects were pre-tested and post-tested on their ability to identify letters named and on their letter naming knowledge.

The results showed a statistically significant difference between the post-test scores of Treatment I classes and the post-test scores of Treatment II classes. This difference favored the Treatment I classes. Both the classes in Treatment I and the classes in Treatment II showed increased in scores from pre-test and post-test that were significantly greater than that which could occur by chance.

The other variables considered in this study were sex and language fluency. The variable of sex was not a factor of statistical significance in this experiment. A teacher rating of language fluency had a low correlation with post-test achievement in letter knowledge. This low relationship may be attributed to the subjectivity of the language fluency scale and its lack of clearly defined rating criteria and specific performance standards.

The results of this study indicate a need for longitudinal studies to determine the long-range effect of the early and direct teaching of letter names to disadvantaged five-year-olds on later reading achievement, success in other school subjects, and their level of achievement as compared to that of middle class children.

7. Rohrer, George Kasnetsis. Racial and Ethnic Identification and Preference in Young Children. University of California, Los Angeles, 1972. 140p. Chairman: Professor Judith V. Ramirez. 72-33,979.

The present study investigates racial/ethnic identification and preference of four-year-old children as they relate to the factors of racial/ethnic group membership, sex, and degree of racial/ethnic contact in the preschool classroom.

One of the major objectives of the present study was to clarify the diversity and inconsistencies of past findings regarding black and white subjects' racial/ethnic identifications and preferences and to investigate the choice patterns of Mexican-American children as well.

The instrument developed for this investigation consisted of two sets of color photographs (males and females) representative of three racial/ethnic groups (white, Mexican-American, black) and individual score sheets.

The sample included white, Mexican-American, and black males and females enrolled in Project Head Start classes in several Southern California communities.

Through the introduction of a third (Mexican-American) choice and group, it was possible to measure the identification and preference patterns of this ethnic group. It was also expected that the general trend found earlier of white over black might well be altered.

Identification results indicated that white children indeed surpassed minority children in correct group identification. Significant sex differences did not emerge within racial/ethnic groups. Both sexes in the black and white groups tended to identify with their own group. Mexican-American males showed a tendency to identify with the white over their own-group choice, while the opposite was true for the females. The impact of integration over segregation significantly improved own-group identification for black subjects; the trend was in the same direction for Mexican-American subjects, while white children tended to identify more accurately in segregated settings.

Preference patterns revealed that the introduction of a Mexican-American group and choice altered the previous pattern of over-all white preference since both minority groups tended to prefer the Mexican-American over the white choice. Significant sex differences emerged for minority but not majority children, with males preferring the white choice and females the Mexican-American choice. This trend was also evident among the white group. The impact of integration over segregation did not reveal statistical differences; however, tendencies were for integration to increase ethnocentrism for blacks, while decreasing it for whites.

The present study reveals the importance of including significant minority groups (Mexican-American, American Indian, Oriental-American, etc.) within the sample, particularly in areas of multi-racial/ethnic population in investigation of racial/ethnic preference and identification. It has also been demonstrated in the present study that future measurement instruments should include choices that are clearly representative of all the racial/ethnic groups being tested.

The significant findings and the intriguing trends found related to racial/ethnic group, sex, and degree of racial/ethnic contact merit further investigation. Of particular interest are the findings that sex was related to preference choices among minority subjects and that the effects of integration over segregation dramatically improved own-group identification among black subjects.

8. Sheriff, Fariyal. Comparison of Classroom Interactions in Three Different Preschools. The University of Michigan, 1972. 179p. Chairman: Jane Schwertfeger. 72-29,205.

Massive educational programs for "disadvantaged" preschool children have been in operation since the advent of Head Start in the early sixties. The emphasis of most research studies that have compared the impact of different preschool programs has been on outcome variables, such as the impact of compensatory education on children's intelligence and achievement. Very few have studied classroom processes or evaluated methods for studying classroom processes.

The present study was conceived, first, to describe and compare classroom interactions in three different experimental preschool programs--a Cognitive, a Language and a Unit-Based program. Second, the study was planned to evaluate the use of a more objective method of describing classroom interactions, Pupil Record of School Experiences (PROSE) developed by Medley et al., (1968). PROSE is a categorical classroom observation system which uses a time sampling method. Observations are made on categories on adult-child, child-child and child-material interactions in a classroom.

The subjects of the study were children, teachers and aides in the three programs. The results showed significant differences among the three programs in the total amount of adult-child, child-child and child-material interactions. There was more adult-child interaction in the Language than the other two programs; more child-child interaction in the Unit-Based program than the Language program and more child-material interaction in the Cognitive than the other two programs.

There were differences among the three programs on adult-child and child-material interaction categories. The Language program was the most structured of the three programs. A large amount of group teaching, formal teaching convergent classroom behavior and a low level of pupil activity were observed; but there was little emphasis on role playing, divergent pupil behaviors or conversing with children. These findings are consistent with the expectations of the program. In the Cognitive program children initiated interactions more often with adults, were cooperative, showed divergent but less convergent behaviors and were involved in role play. Teachers were more permissive, provided individual instructions and conversed with children more than in the Language program. A large amount of children's activity was at a medium level. The above results showed that for this program, the goals were successfully implemented. The Unit-Based program was unlike a traditional preschool program in that teachers placed emphasis in Language development and verbal teaching. There was more formal teaching and group teaching in this program than in the Cognitive program, but less than in the Language program. The predicted results of the Unit-Based curriculum were that children initiated interaction, their behaviors were divergent, they were more cooperative and teachers were more permissive than in the Language program. Thus, certain goals of the Unit-Based programs were implemented. Peer behaviors showed few differences on the scales used.

The present research also demonstrated that an observation instrument as PROSE is a powerful technique for differentiating classrooms at implementation level.

9. Smith, Sara Dawn Mitcham. An Analysis of Self-Developmental Behavior Patterns of Preschool Children in Planned Variation in Head Start. University of Maryland, 1972. 202p. Supervisor: Dr. Robert C. Hardy. 73-9721.

This study was concerned with the relationships of learning environment and programmatic approaches to social-personal behaviors of children in Planned Variation in Head Start. The question which guided the investigation was: Is the degree of teacher direction or child selection of activity related to positive changes in behavior in the preschool child in Planned Variation in Head Start?

The principal hypotheses were:

Hypothesis I: A positive relationship exists between the degree of teacher direction of activity and changes in behavior of a positive nature in preschool children in classrooms of of Planned Variation in Head Start.

Hypothesis II: A negative relationship exists between the degree of child selection of activity and changes in behavior of a positive nature in preschool children in classrooms of Planned Variation in Head Start.

Hypothesis III: A positive relationship exists between the degree of teacher direction of activity and changes in behavior in the direction of positive withholding patterns of behavior.

Hypothesis IV: A positive relationship exists between the degree of child selection of activity and changes in behavior in the direction of positive outgoing patterns of behavior.

Hypothesis V: A positive relationship exists between the degree of child selection of activity and changes in behavior of a positive nature in relationship with peers.

Hypothesis VI: A negative relationship exists between the degree of teacher direction of activity and changes in behavior of a positive nature in relationship with peers.

Hypothesis VII: A positive relationship exists between the degree of teacher direction of activity and changes in behavior of a positive nature in relationship with adults.

Hypothesis VIII: A positive relationship exists between the degree of child selection of activity and changes in behavior of a positive nature in relationship with adults.

Hypothesis IX: A positive relationship exists between the degree of teacher direction of activity and changes in behavior of a positive nature in self-related behaviors.

Hypothesis X: A negative relationship exists between the degree of child selection of activity and changes in behavior of a positive nature in self-related behaviors.

Methodology: Subjects of this study were children in eleven Planned Variation models and two consultant models of Head Start who were subjects of case records made by members of observational teams from the Institute for Child Study. Records were then analyzed by the Preschool Behavior Observation System, an observation classification system for social-personal behaviors. This system permitted the conversion of individual behavior records to a statistical base.

Learning environment and programmatic approaches of individual classrooms were used for testing the hypotheses because the sample was too small to permit examination of models. Data concerning the degree of child selection or teacher direction of activities in individual classrooms of the subjects observed were provided from observations made by staff members of Stanford Research Institute using the SRI Observation Instrument. Huron Institute assisted in the analysis and provision of data for this study from the SRI materials.

Hypotheses were tested using fall-spring change scores of different behavior areas to correlate with the summary variables of Teacher Direction and Child Selection measures of the sixteen subjects who remained from the original forty-six subjects studied.

No significant correlations were found in any of the hypothesized relationships. While it may be stated that none of the hypotheses were accepted, several possible explanations for the lack of significant correlations were suggested and discussed. The study resulted in the development of an instrument, the Preschool Behavior Observation System, which measured non-cognitive behaviors of case records made in a naturalistic setting. This instrument has been shown to have construct validity and an intra-judge reliability of .75 to .88.

Further research should include additional comparative studies which examine noncognitive behaviors of children in conjunction with goals, expectations, and implementation of teacher role in various programmatic approaches. Refinement of observational instruments, access to larger samples of children and improvement of research design to include predictive studies as well as ex-post facto studies should be considered.

10. Vukelich, Carol Palm. Language Growth in Head Start Children Through Verbal Interaction With Mothers Trained in a Prescribed Language Process. Southern Illinois University, 1972. 209p. Major Professor: Dr. Rebecca Baker. 72-28,560.

The purpose of this study was (1) to develop a language process ameliorative to hypothesized detrimental characteristics of the lower socioeconomic mothers' communication style and of the language acquisition and development of disadvantaged children, and (2) to investigate the effectiveness of lower socioeconomic mothers' use of the prescribed language process in enhancing their Head Start children's language development. Subjects of the investigation were 34 young disadvantaged children attending two Head Start programs. To determine the effectiveness of the mothers use of the prescribed language process, the 34 subjects were assigned to one of three treatment groups. Children in the Carterville, Illinois Head Start program were randomly assigned to either treatment group 2, n=13, Head Start and daily individualized attention of a spontaneous nature from college students, or treatment group 3, n-11, Head Start only. Assignment of children in the Murphysboro, Illinois center was contingent upon the mother's consent to participate in the mother training program and to use the language process with her child.

Nine mothers and their ten Head Start children participated in treatment group 1, Head Start and daily individualized attention from their mothers trained in the language process. To measure and compare language growth over the eight week treatment period, all participating children, N=34, were pre- and post-tested on six linguistic criterion measures. These measures included the Peabody Picture Vocabulary Test, and five subtests of the Illinois Test of Psycholinguistic Abilities including the Visual Association Subtest, the Verbal Expression Subtest, the Visual Reception Subtest, the Auditory Reception Subtest and the Auditory Association Subtest. For each of the six linguistic criterion measures, it was hypothesized that (1) the mean gains of children in treatment group 1 is statistically significantly greater than the mean gain of children in treatment group 2; and (2) the mean gain of children in treatment group 1 is statistically significantly greater than the mean gain of children in treatment group 3. The pre- and post-test data was analyzed by means of the analysis of covariance technique. All twelve hypotheses were teated at the .05 level of significance. The analysis of the data revealed (1) the mean gain of children in treatment group 1 was statistically significantly greater than the mean gain of children in treatment group 2 on the Peabody Picture Vocabulary Test, the Visual Association Subtest, the Verbal Expression Subtest, and the Auditory Association Subtest; (2) the mean gain of children in treatment group 1 was greater than, but not statistically significantly greater than, the mean gains of children in treatment 3 on the Visual Reception Subtest and the Auditory Reception Subtest; (3) the mean gain of children in treatment group 1 was statistically significantly greater than the mean gain of children in treatment group 3 on the Visual Association Subtest; (4) the mean gain of children in treatment group 1 was greater than, but not statistically significantly greater than, the mean gain of children in treatment group 3 on the Peabody Picture Vocabulary Test, the Verbal Expression Subtest, the Auditory Association Subtest, and the Auditory Reception Subtest.

Early Childhood
Follow Through

11. Mork, Dorian Dean. The Development of Content Criteria and Analysis Instrument for Parent-Child Tasks of the Florida Follow Through Model. The University of Florida, 1970. 90p. Co-Chairmen: Dr. J.B. White and Dr. Charles Cate. 71-13,439.

The purpose of this study was to develop a statement of task criteria and an analysis instrument for analyzing parent-child tasks used in the Florida Parent Education Follow Through Model.

A total of 886 task content suggestions were surveyed from thirteen Florida Follow Through faculty and personnel from the eleven public school communities participating in the Florida Model. After combining, restating, and classifying, the number of task content suggestions was reduced to 87.

The 87 suggestions were submitted to the Florida Follow Through faculty for rating. A statement of task criteria was constructed from the 84 suggestions receiving a group approval rating.

Certain items from the statement of task content criteria were selected for inclusion in a task analysis instrument. Of the original 48 items selected for the instrument, 45 items were retained on the basis of acceptable validity and reliability.

The task content criteria can be used to guide and assist Florida Follow Through consultants, coordinators, teachers, and parent educators in the future development of parent-child tasks.

The task analysis instrument can be used by Florida Follow Through teachers and parent educators for assessing the tasks they develop with respect to the criterion dimensions. The instrument can also be used for on-going relational research toward the refinement of the task component of the Florida Follow Through Model.

12. Glade, Melba. The Effect of the Responsive Environment Model Program on the Cognitive Development of Project Follow Through Children in the Salt Lake City Schools. University of Utah, 1972. 167p. Chairman: Odean Hess. 72-23,605.

With the beginning of the 1970's, the essential character of most schools-in purpose, in form, and in function-appeared to be very much as it had been in the early sixties. Behind an apparently unchanged front, however, forces that had been set in motion during the 1960's were beginning to produce significant changes in the American school system. Among the new influences were the pressures from the poor and the minorities. The principal thrust of these new pressure groups was the broadening and deepening of the concept of universality in American education and the requirement of different approaches to the equalization of opportunity.

President Lyndon B. Johnson's message to Congress on America's Children and Youth on February 8, 1967, was indicative of an aroused concern for children, particularly children from impoverished environments. Accordingly, Project Follow Through was designed to carry the benefits for disadvantaged children of Project Head Start into the regular school system.

The Salt Lake City District qualified as one of the forty Follow Through program centers in the nation. Accordingly, the purpose of this responsive Model Program in the alleviation of educational and intellectual deficiencies in culturally deprived children. This was accomplished by assessing pupil gains in the academic areas of reading and arithmetic.

By June, 1971, the five participating Project Follow Through schools of the district were in the fourth year of the program. This study included children of the primary grades in the Project Follow Through schools. These children comprised the Experimental Group subjects (267). Control Group A consisted of similar low-socio-economic background children from Title 1 schools (247). Control Group B subjects were children of middle socio-economic background according to information obtained from Pupil Inventory Data Sheets supplied by teachers (90). By the same mean Control Group C subjects, high-socio-economic status children, were selected (90). This made a total of 694 subjects in the study.

The criterion instruments used to ascertain the effect of the Responsive environment approach on pupil cognitive development were the following: (1) The Otis-Lennon Mental Abilities Test administered to third grade pupils in city schools, April, 1971; (2) The Pupil Achievement Test (PAT), a district-made test battery by city personnel administered to pupils in grade one through three in the schools from April 26-30, 1971; (3) The Metropolitan Achievement Test, Primer, Primary I and II administered to pupils of primary grades in Title I schools, May, 1971; (4) Pupil Inventory Data Sheets distributed to city teachers, completed and filed at city school offices, April, 1971.

Test data and pupil inventory data were compiled for each of the pupil subjects in the study. The data were punched into cards for analysis, and processed at the University of Utah

Computer Center. Analysis of test data indicated that mean differences for the Pupil Achievement Test and the Metropolitan Achievement Test favored high-socio-economic-pupil subjects in all test categories. Experimental Follow Through pupils' mean scores were within a five point range, but lower than Control Group A pupil means, with the exception of arithmetic, third grade, where Experimental Follow Through pupils lead. Control Group A and B achievement means were similar. However, there was a consistent three-to-five-point difference between mean scores of Control Group A and B, with Control Group A leading. By third grade, test mean scores indicated that Experimental and Control Groups were achieveing a stable difference within a ten point range.

All pupil groups made substantial gains in arithmetic and reading and achieved grade standard according to Metropolitan Test percentile ranking.

As shown by correlation analysis, Metropolitan Achievement Test and the Pupil Achievement Test were significantly related.

The statistical analysis of variance was done by the Brigham Young University Computer Center as a program was available by which the relationships or the main effects of the variables in the study were obtained. The results indicated no significance for the Responsive Environment Model of Project Follow Through when all variables were considered. Pupil-socio-economic status, ethnic background, school, IQ, and grade were the variables that appeared to be most significant in relation to pupil achievement. Therefore, the data and the results of the study would seem to have significant bearing on government programs and universal preschool and primary education.

13. Goldberg, Milton. A Description of the Philadelphia Follow Through Models and a Comparison of Selected Teacher and Child Behaviors Across Models. Temple University, 1972. 235p. 72-27,186.

The purpose of this study was to describe the seven Follow Through models, each representing a different approach to the education of young children, used by The School District of Philadelphia. In addition, certain aspects of these approaches were assessed. The investigation was conducted with the following objectives: (1) To describe each approach used in the Philadelphia Follow Through Program with regard to rationale, curriculum, and program objectives (2) To assess selected behaviors of teachers in the varied Follow Through models as they relate to model objectives (3) To analyze aspects of classroom interaction in the varied Follow Through models (4) To determine the effects of the varied models on selected child behaviors.

In order to describe each of the models, information was gleaned from sponsor developed materials, interviews, workshops, and on site visits. For an assessment of classroom organization and instructional style, a classroom observational and monitoring instrument was developed. The instrument was designed to characterize student and teacher behaviors, methods and styles of instruction, and other Follow Through objectives. Ten observers were trained to use the monitoring instrument and collect the data. Three one-half hour observations were conducted in all Follow Through model kindergartens and first grade classrooms. Each classroom was observed by at least two monitors on at least two different days a week during a six week period. At least one observation was scheduled in the morning and one in the afternoon. Comparisons of data among the Follow Through models were made using a chi square analysis.

Findings: (1) Follow Through teachers tended to exhibit classroom behaviors consistent with model objectives regardless of approach when these objectives related to general aspects of classroom management and organization. Observable features of Follow Through classrooms across all models included completion of goal-related activities, high quality of student discussion, teacher sensitivity to children, reduced levels of student misbehavior, and emphasis on academic activity. (2) The Behavior Analysis model exhibited high degrees of teacher direction, competitiveness, and individualized instruction. Positive reinforcement and extensive time spent on reading were also characteristic of these classrooms. These data suggest that Behavior Analysis demonstrated a high level of implementation. (3) The Education Development Center model exhibited high degrees of student participation, teacher flexibility, and permissiveness. A variety of materials were utilized and readily available as teachers used open-ended questions to stimulate differentiated activity. These data suggest that Education Development Center demonstrated a high level if implementation. (4) The Bank Street Bilingual-Bicultural, Florida Parent Education, Parent Implemented, and Philadelphia Process models all tended to display a minimum number of significant differences except as related to general classroom management.

Conclusions: (1) It is conjectured that Follow Through teachers displayed high levels of effective classroom management and responsiveness to children as a result of intensive training and support provided by model sponsors, regardless of instructional approach. (2) The Behavior Analysis of Education Development Center models, which represent considerably different instructional approaches, exhibited high degrees of implementation related to model descriptions. This suggests that well-defined positions about instruction, as represented by positive reinforcement or open education, may insure more understanding among teachers through training and recommendations for classroom activity. (3) It may be further conjectured that those models which displayed fewer significant classroom characteristics as compared to Behavior Analysis and Education Development Center presented more difficulty for teachers in terms of classroom implementation. However, this does not necessarily signify ineffective operation or potentially lower student achievement. It does suggest need for closer examination of the relationship between program description and operational practices.

14. Richburg, James Robert. An Ethnographic Description of the Choctaw Follow Through Program From 1968 to 1971. University of Georgia, 1972. 208p. Supervisor: Marion J. Rice. 72-34,136.

The objective of the study was to prepare an ethnographic description of the implementation of the Choctaw Follow Through program from 1968 to 1971 and to analyze the conflicts of dual jurisdiction and accountability resulting from the establishment of an Indian-directed educational program within a Bureau of Indian Affairs school system.

Methodologies used in the field study were from the ethnographic, historical, and survey tradition. The major research method was the participant-observer technique in the anthropological tradition.

Findings of the study were organized under three categories of propositions: (1) propositions pertaining to program implementation, (2) propositions pertaining to dual jurisdiction, and (3) propositions pertaining to outcomes.

The first set of propositions dealt with program implementation. The compatibility of the new program to the established patterns of Choctaw education in terms of the home, school, Choctaw Indian agency, and the tribe was discussed with anecdotal data. The relationship of program accountability to program implementation was described in a proposition which proposed that clear accountability referents facilitated program implementation. Systematic implementation procedures and clear goals as a means of minimizing implementation conflicts were presented along with a discussion of the role of broadbased decision making on program implementation.

The second set of propositions dealt with dual jurisdiction and its influence on program implementation. Dual jurisdiction was examined in terms of ethnic and institutional loyalities, ambiguous accountability relationships, communication systems, and decision making. The final set of propositions were concerned with program outcomes. Political control of a program and the recycling of the change processes were proposed as possible program outcomes.

Early Childhood
Other Preschool and Primary Programs

15. Conekin, Albert McKenzie. Intellectual Development of Disadvantaged Children With and Without Pre-School Experiences. The University of Florida, 1967. 94p. Chairman: Dr. Myron A. Cunningham. 73-980.

This study is the investigation of the aspirations, expectations, and attitudes toward education of the parents of disadvantaged children and changes in the children as a result of pre-school experiences.

The subjects were 108 matched pairs of disadvantaged children tested at the beginning and the end of the experimental period. During thic time, one member of each pair attended a nursery school; the other did not. In all measured respects, the home conditions of the children in each group were essentially the same and their mean chronological ages at the time of the initial test differed by only a small fraction of a month. A fifty-item parent questionnaire was completed at the time of the initial examination. The mean interval between testing was slightly more than three months for each group. The Peabody Picture Vocabulary Test was used for both the initial and final examinations with the two forms counterbalanced as near as possible within the limits of the study. Twelve per cent of the children had suffered a major illness and a very high percentage of the experimental subjects (70.34 per cent) had dental caries with many in need of immediate dental care.

A longitudinal view was taken in this study; that is, changes from initial to terminal I.Q. due to pre-school attendance was related to the environmental impacts existing during the period under consideration. The experimental children in this study made significant gains as compared to the controls. The children who received the treatment had a mean gain of ten I.Q. points. It was found that children not in the pre-school program reflected a net loss of intellectual functioning. This to a great extent is probably due function of the different maturational rates of boys and girls, but consideration must be given to the possibility that the same environmental impacts may have different dynamic value at progressive age levels.

Summary of Parent Questionnaire: Nine of ten parents wanted a high school education for their child and one-third wanted their children to attend college. Fully three-fourths expected their children to maintain an A/B average in both academic subjects and citzenship. They felt that the language arts had the greatest value and utility for their children. Reading was selected as the most important school subject by a margin of more than two to one. Three-fourths felt that education would be of much help in the future.

Summary of the Study: In summary, the families in this study expressed a generally favorable opinion of the manner in which the school was conducting the business of educating their youth. Many disadvantaged parents look upon education as a source of hope and as a means of improving the lives of their offspring. They know that school can be an important factor in the future of their children in spite of many negative views and attitudes. Pre-school education is being considered as a means of giving the disadvantaged child the experiences and cultural exposure necessary to enter school and live on a more equal footing with other children and to break the cycle of poverty. For the educator it will require strenous effort, studied awareness, and an immense creativity to provide antidote to cultural lags and the anti-magic of deprivation.

16. Goldman, Richard Morris. Development of a Training Program to Increase the Use of Reinforcers in Informal Teaching By Mothers of Educationally Disadvantaged Children. University of Pittsburgh, 1970. 173p. 70-20,335.

Parents for the most part, have been excluded as a partner in their children's education by the educational system. The program designed in this dissertation attempts to build a partnership between the school and the home. The dissertation problem was to conceptualize, design, and carry out a program to train mothers of educationally disadvantaged children to increase their use of positive verbal reinforcers as they interacted with their children.

The researcher examined the literature related to: mothers of educationally disadvantaged children; disadvantaged children; and programs developed to train disadvantaged adults to acquire teaching skills. The primary findings in the literature emphasize the quality of the mother's interaction style with her children has an effect on the child's cognitive development and that the quality of this interaction can be effected by training.

The pilot study was completed in two phases. The first phase consisted of the researcher analyzing the mother-child interaction styles of two middle-class mothers and two mothers of educationally disadvantaged children. He found that the research that reported on the interaction styles of mothers applied to these four mothers. From the researcher's experiences with these four mothers and from other experiences the researcher had with other mothers of disadvantaged children, he developed seven training strategies that were used with one mother in the second phase pilot study. The primary objective for each strategy is to help mothers acquire and maintain their use of reinforcers. Each strategy includes specific objectives, a description of the strategy, and a rationale for the strategy.

The researcher worked with one mother in the second phase of the pilot study. The training consisted of the researcher working with the mother once a week for six weeks using various training strategies. Between training sessions the mother audio-taped her interaction with her child. From the seventh to eleventh week, the mother continued to audio-tape her interactions with her child. During these four weeks the mother received no training from the researcher. The researcher and the mother had contact between weeks twelve and fifteen. The mother again audio-taped her interaction with her child during week sixteen. All of the audio-tape of mother-child interaction were analyzed by the use of a time sample category system. The category system enabled the supervisor to calculate the percentage of time samples for the use of reinforcers and negative comments for each audio-taped sequence. The mother in the pilot study was consistent in her use of reinforcers (approximately 20% of the time samples) and negative comments (approximately 5% of the time samples).

The researcher then worked with six mothers in a developmental study. The researcher used a training sequence similar to the sequence used with the mother in the second phase of the pilot study. He varied the sequence of the strategies with the objective of evaluating the effects of individual strategies and varying sequences on the mothers' use of reinforcers. The mothers in the development study used reinforcers and negative comments at a rate similar to the middle-class mothers in the developmental stage who did not receive the training.

Based on the experiences of the researcher in the pilot and developmental study, he developed a beginning design to train parent educators (mothers of disadvantaged children who train other mothers of disadvantaged children to use reinforcers) and teachers who help the parents of the students to acquire reinforcement skills.

17. Cromie, Robert George. The Ontogeny of Linear Patterns Among Young Normal Children in an Economically-Disadvantaged Area. The University of Connecticut, 1971. 151p. 72-32,135.

This study was designed to examine the development of the ability of young (4 to 7 years) normal children (classroom performance within one standard deviation of mean performance, or above) to deal with patterns in three cognitive processes and in three cognitive modes.

Inquiry into this ontogeny was accomplished through the administering of a fifty-four item instrument structured to reflect the processes and modes. The processes were categorized as: reproduction (make a copy), identification (select a response from a set of possible responses), and extension (extrapolate in a specified manner from a model). The modes were classified as: enactive (cubical blocks), iconic (colored square regions), and symbolic (block-letter symbols). Six basic linear patterns with fixed repetends were applied at each process and mode.

Data were gathered from fifty-six students living in a government-sponsored housing project. They were selected from two elementary schools and our nursery schools, and included three grade levels - prekindergarten, kindergarten and first grade. Analysis of variance statistics were computed with respect to the differences in performance attributable to cognitive process, cognitive mode and grade level. Planned orthogonal comparisons through t-tests provided evidence of the effects on performance attributable to the cells and patterns. (A cell was defined by a process and a mode; thus, nine cells). Item analyses were conducted with respect to comparisons between item scores and cell scores, and between item scores and total scores. These analyses included difficulty levels, discrimination indices and point biserial estimates of the Pearson product moment correlation coefficients.

The following statistically significant ($p < .01$) differences in performance resulted:

1. Main effects. There were differences in performance attributable to cognitive process and to grade level.
2. Simple main effects. There were differences in performance at each grade level attributable to cognitive process. There were differences in performance in the identification and extension processes attributable to grade level.

These results and other observations led to the following pertinent conclusions:

1. The ontogeny for cognitive process was established as reproduction, identification, extension.
2. The type of reasoning involved to accomplish these tasks improves during the ages of 4-7 years.
3. A grouping effect by cells reflected the process effect.
4. Cells and individual tasks differentiated between those subjects who knew how to respond to the tasks and those who did not.
5. Tasks in the extension process lend themselves to the design of classroom activities and inventory items.

6. Prekindergarten and kindergarten groups found patterns with repetends of four elements the most difficult.
7. All subjects knew how to respond in the reproduction process.
8. For the overall group the order of presentation was established for patterns P1, P2 and P3 in that order.
10. Subjects responded equally well in all modes.

Implications of these findings were discussed in terms of their educational significance, and specific recommendations were made with respect to the designing of curricular materials for classroom activities and for inventory purposes. Comments were also made concerning future studies in the area of patterning in mathematics education.

18. Anderson, Vivian Arlene. A Comparison of the Sociodramatic Play Ability of High Socioeconomic Status Black Kindergarten Children and High Socioeconomic Status White Kindergarten Children. The Ohio State University, 1972. 176p. Adviser: Professor Martha King. 73-1926.

The present study investigated the sociodramatic play behavior of high socioeconomic status kindergarten children from two different racial groups, Caucasian and Negro, and identified the uses of verbalization in that play. Sociodramatic play, as defined by Sara Smilansky, is play in which a child takes on a role, elaborates a theme in cooperation with at least one other roleplayer, and interacts with at least one other child both in action and verbally.

It was hypothesized that there would be similarities in the role of high SES Black and high SES white kindergarten children on the basis of total play score and each of the play elements measured. Secondly, it was hypothesized that there would be similarities in the sociodramatic play of high SES boys and high SES girls on the basis of total play score and each of the play elements measured. It was further hypothesized that there would be no significant relationship between level of sociodramatic play of the children as measured by total play score and their intelligence as measured by the Goodenough Drawing Test. The final hypothesis dealt with the uses of verbalization in sociodramatic play. It was hypothesized that there would be similarities in the way high SES Black kindergarten children and high SES white kindergarten children used verbalization in their sociodramatic play.

Fifty-four Black and fifty-four white kindergarten children, equally divided as to sex, were selected on a convenience basis from within a twenty mile radius of Columbus, Ohio. Each Black subject was paired with a white subject on the basis of educational level of the main support of the family.

Children were observed at play in groups of four in a play room set up in each of eleven schools. Each observer made a specimen record of one child's verbal and nonverbal behavior. These observation records were evaluated in terms of the six elements deemed essential to sociodramatic play by Smilansky. This data was treated by three one-way multivariate analyses of variance.

A random sample of the verbalization used in play was evaluated in terms of the functions of verbalization proposed by Smilansky. The chi square test was applied to this data.

The results of ths study indicated that there was a significant difference at the .001 level between the sociodramatic play of the Black and white subjects of the study. Black subjects scored consistently and significantly higher on each of the subscores of play and total play score. Secondly, there was no significant difference at the .05 level between the sociodramatic play of high SES boys and high SES girls of this study. Neither the boys nor the girls played significantly better on any subscore of play or total play score. Also, there was no significant relationship at the .05 level between level of sociodramatic play of high SES subjects of the study as measured by total play score and their intelligence as measured by the Goodenough Drawing Test. Subjects with higher intelligence quotients did not play significantly better than children with lower intelligence quotients. Finally, there was a significant difference at the .001 level in the way that Black and white subjects used verbalization in play. Black subjects used more imaginative make-believe verbalization while white subjects used more verbalization to manage the game.

19. Bennet, Jr., Richard Wilson. The Magnitude of the Teacher Effect Upon Pupil Achievement in the Primary Grades. University of Colorado, 1972. 138p. Director: Professor Kenneth D. Hopkins. 72-25,137.

The purpose of this study has been to estimate the magnitude of the teacher effect on pupils' learning at the first and second grades. The teacher effect was defined as the mean residual gain scores of the individual teacher's class. It was understood that the variance in teacher effects would be a maximum estimate of the actual teacher effects-it being impossible to statistically equate the learners on all factors influencing their achievement.

The investigation was divided into two major sections: the Title I phase in which the teacher effect at the second grade was examined, and the intensive district phase in which the first grade teacher effect was assessed. In the latter phase the stability of the teacher effect across successive school years was studied as well as the lasting effect of the grade one teacher on second grade achievement.

Two separate samples of teacher, schools and tests were employed in studying the grade two results of the Data Analysis of the 1968-69 Survey of Compensatory Education (Title I). A random model analysis of variance using residual gain scores in reading, as the dependent variable was used to analyze the data. In each case the F-test for the teacher factor was significant. The standard deviation of the teacher effect was estimated to be at about two school months on each test.

The intensive district phase of the research was subdivided into three major analyses-a study of the teacher effect at the first grade level, the assessment of the stability of this effect and an investigation of the lasting nature of this effect. A mixed model analysis of variance employing residual gain scores on each of the five subtests of the Metropolitan Achievement Test as the dependent variables was used to investigate the teacher effect. The pupils were equated on the basis of pretested academic readiness using polynomial regression equations, necessitated by the curvilinearity in the relationship. Pupils entering grade one in consecutive years 1968-69 were studied separately. In both first grade classes studied there was a substantial teacher effect on each of the five tests in the achievement battery. The standard deviation of the teacher effect averaged approximately 3 months in grade equivalents.

The stability of the teacher effect was studied in order to strengthen the case for a true teacher effect vs. a classroom effect. If the "good" teacher one year also obtained good results the next, there would be more justification for attributing the achievement differential to the teachers rather than to some other influence operating within the classroom. Correlations computed on the data across the two years were positive, significant and substantial.

An analysis to determine the lasting nature of the teacher effect on second grade achievement was conducted to establish the permanence of such effect. To perform such an analysis a comparison of the first and second grade achievement scores of a single set of pupils was required. Using a teacher-by-pupil repeated measures design, an analysis of variance was performed using the residual gain scores on each of the five subtests. The results confirm a clear, lasting impact of the first grade teacher effect upon second grade achievement.

The findings of this study provide empirical support for the commonly held view that differences exist among teachers' abilities to produce academic growth in their pupils. These differences appear to be substantially consistent from year to year, and to be lasting rather than temporary in nature.

20. Farkas, Marshall. Family Organization and Preschool Achievement. University of Illinois at Urbana-Champaign, 1972. 166p. 72-19,827.

The kinship system consists of relationships derived from ties of blood and marriage which connect individual families into a network. The way the kinship system is organized can be seen as influencing the socialization of the child. The kinship system may be organized to promote independence between nuclear families, or may require interdependence of individual nuclear families.

This study utilizes two forms of kinship organizations, domestic and structural symbolic, as the ends of a continuum. Where domestic aspects of kinship are emphasized interdependence of individual nuclear families is required. Independence and isolation of individual nuclear families are produced where structural symbolic aspects of kinship are emphasized in nuclear families where structural symbolic aspects are stressed the child is socialized in ways consistent with the values of the larger society. When domestic aspects of kinship are stressed the values of the larger society are in conflict with the values that predominate within the family.

This study was restricted to lower class families who were viewed not as some homogeneous grouping, but as a group where both aspects of kinship could be located. The sample was selected from families and preschool children enrolled in Head Start. One hundred and fifty children were administered "criterion reference tests." From the results of these tests children who were designated as high and low achievers were chosen for inclusion in the sample population. Eighteen families, nine with children who were in the top fifth in performance and nine with children who were in the bottom fifth in performance were matched on the following criteria: income, source of income, number of adults present in the home, head of household, number of siblings in the home, age of preschool children and race. In this manner nine matched pairs constituting the sample population were produced.

The results of this study indicated that children from families where structural symbolic aspects were stressed tended to be in the high performance group, as compared with the low performance children who tended to be concentrated in families where domestic aspects of kinship organization were emphasized.

21. Halpern, Stanely Joseph. A Study of the Relationship of Environmental Variables and Readiness for Learning in Kindergarten Children. Temple University, 1972. 187p. 72-27,195.

The purpose of this study was to investigate the extent to which parent attitudes and conditions in the home account for certain measures of readiness in kindergarten children. This study attempts to clarify some of the controversy concerning the malleability of cognitive and visual-perceptual-motor integrative abilities. Specifically, the study was designed to determine if readiness, as measured by the Bender Gestalt, the Stanford Early School Achievement Test, teacher ratings of readiness, and the ability to learn a novel cognitive task might be predicted from knowledge of parent attitudes (derived from the Parent Attitude Research Instrument) and the learning climate in the home (assessed by the Home Environment Review).

The kindergarten population (104 children) of a lower-middle-income community served as the sample population. PARI questionnaires were sent to the homes and were completed by 99 mothers. Trained volunteers went into the homes of the subjects and rated learning conditions by means of a structured interview technique (HER). Each of the subjects completed a battery of three tests of readiness and were rated by their teachers on a 24 point scale designed by the experimentor. The Stanford Early School Achievement Test, the Bender Gestalt (scored using the Kippitz system), a learning task developed by Beller, and teacher ratings were used in order to sample a broad range of readiness factors. In addition extensive information concerning the socio-economic backgrounds of the subjects was collected.

Parent attitudes, which were measured by the PARI responses obtained from the mothers of the kindergarten children studied, accounted for from about 13 per cent to 25 per cent of the variance in readiness scores. The climate for learning in the home, as rated by trained observers using the HER structured interview technique, accounted for from about 11 per cent to 20 per cent of the variability in measures of readiness. Combined, the PARI and the HER accounted for from 32 to 43 per cent of the variability in measures of readiness.

The results of the study lend support to the interactionist theory of child development. In particular, the findings concerning the relationship between environmental factors and performance on the Bender Gestalt would seem to cast doubt on the practice of viewing the development of visual-perceptual-motor-integrative abilities strictly from a neurological-developmental frame of reference. The multiple R of .5753, which was obtained when PARI and HER scores were used to predict Bender scores, suggests that the home environment significantly influences the development of visual-perceptual-motor functions. Of particular importance to the development of parent education programs was the relatively high multiple R of .4432 obtained when HER variables were compared with Bender scores. This suggests that the HER is a useful instrument for examining environmental variables which are associated with visual-perceptual-motor development.

Generally, relationships between the PARI and measures of readiness and the HER and measures of readiness were of similar magnitude. However, parent attitudes were found to contribute to a much greater extent to the prediction of teacher ratings of readiness of the developmentally advanced children than did the climate for learning in the home.

A variety of background factors, including race, educational level of the parents, housing conditions, and occupational level of the father, were considered. These factors were examined in order to determine the extent which differences in racial and socio-economic background affect the mother's responses to the PARI questionnaire and the climate for learning in the home (as measured by the HER). In general, the data indicated the differences in readiness levels were associated with socio-economic status and racial membership.

The results of this study lend support to the basic propositions that at least 32 to 43 per cent of the cognitive and visual-perceptual-motor-integrative skills associated with readiness are malleable. The data supports the contention that parents intentionally or unintentionally prepare their children for successful accomplishment in school.

22. Kuczen, Barbara Schaller. A Two-Part Approach to the Education of Mothers of Potentially Environmentally Disadvantaged Children Regarding A Stimulating Early Childhood Environment. Loyola University of Chicago, 1972. 301p. 72-18,061.

The major objective of this study was the development, implementation, and evaluation of an effective approach for combating intellectual loses of young children which result from a preschool environment lacking a stimulation. Research findings indicate that children suffer losses of as many as ten intelligence quotient points during the first four years of life if adequate stimulation is not provided. Mothers who need assistance in providing a stimulating environment are often not able to participate in normal programs, classes, or meetings designed to help them. Due to poor reading skills, they are usually unable to profit from material written on this subject.

The study involved a review of literature to determine the knowledge most vital to parents of young children. It also was necessary to determine large groups of mothers who do not posess this knowledge. Based on this information, a plan for study was developed. Materials to be used consisted of a kit, containing a list of objects and a sample of some items which should be part of every preschool environment, and an illustrated, low reading level programmed learning booklet, containing **suggestions** for providing a stimulating preschool environment. Both materials are designed for independent, leisurely use by parents.

The booklet and kit were tested and revised during the pilot study. The booklet and kit were implemented and tested at Cook County Fantus Clinic. One hundred mothers were divided into four groups. Group one received the booklet only; group two received the kit only; group three received the booklet and kit; and group four received no materials. Pre- and post tests were administered. A second group of fifty-four middle-class mothers of preschool children was also administered the test to determine that low-income mothers do not, in fact, possess the knowledge that mothers of children proven more successful in school do possess. The mothers classified as disadvantaged scored significantly lower in their knowledge of preschool stimulation prior to receiving materials.

The results of statistical interpretation indicate that both the booklet and kit were significantly effective, at the 5% and 1% levels of confidence, respectively. The kit was more effective in informing mothers regarding materials which should be in the home. The booklet and kit were of equal effectiveness in informing the mothers of their vital teaching role. The approach in which both the kit and booklet were distributed was not significantly more effective than the booklet alone. The booklet was found more effective than the kit in transmitting general knowledge at the 5% level, but not at the 1% level.

The findings indicate that the major objective was successfully achieved.

23. McIntosh, John Roy. School Readiness Skills Scores of Primary School Lower Class Pupils As Affected By Varying Learning Environments. Purdue University, 1972. 100p. Major Professor: Everett Nicholson. 73-6064.

This study sought to determine whether an early childhood education program employing varying types of learning environments would facilitate school readiness ability in lower-class primary school age pupils. Further, the question of whether the various learning environments would produce differential impacts in school readiness was examined.

The study revolved around Project: S.E.E., which was a model primary school program of early childhood education for educationally "disadvantaged" lower-class children. The program was funded for three consecutive years under Title III of the Elementary and Secondary Education Act of 1965. It began in the school year 1969-70 and terminated at the end of the 1971-72 school year. The project was conducted at four Indianapolis Public Elementary Schools.

At each of the schools, a different learning environment was used for the kindergarten groups. The four types of learning environments were: (1) Reading-oriented; (2) Montessori-type; (3) Unstructured; and (4) Like-sex. In the latter instance, female teachers were employed with classes of all girls and male teachers with classes of all boys.

The Screening Test of Academic Readiness was used to measure school readiness of pupils in the varying learning environments. Comparison of mean readiness scores of the varying learning environments was made by a one-way analysis of variance. A one-way analysis of covariance was used to adjust pretest measures of pupils in the varying learning environments. Observations were also make to determine other influences of the learning environments. This was accomplished by describing three factors in each environment. They were pupil behavior, teacher's role and physical facilities.

The findings of the study from the formulation of two major hypotheses and the subsequent testing of them is as follows:

A. Hypothesis Number One: Participation of lower-class kindergartners in a school instructional program will be accompanied by an increase in their performance on the STAR.

The analysis of variance used to examine the differences in total mean scores within the four schools yielded an F ratio significant at the .01 level of confidence. This indicated a definite increase in STAR scores in all four learning environments.

B. Hypothesis Number Two: With lower-class kindergarten pupils, different learning environments will result in differing amounts of change in readiness scores that occur within each learning environment.

The analysis of covariance and subsequent probing technique of Newman-Keuls procedure showed highly significant differences among three of the four learning environments.

The Star test comparisons favored the Montessori-type of environment over all of the other three. The second highest ranking environment was the Reading-oriented, which showed statistical differences significantly higher than both the Unstructured and Like-sex environments. The latter two were not significantly different from each other when the STAR readiness test scores were considered.

Based on the findings of the study in examining the above gains in pre- and post-test STAR scores and the observational phase of the study the following implications and recommendations are suggested: (1) All four school environments which were in some measure a departure from traditional types of programs were successful in significantly improving the school readiness of kindergarten age pupils from lower socio-economic backgrounds. (2) If school readiness is a prime goal, the Montessouri and Reading-oriented types of learning environments appear to have considerable merit. (3) The contention of Hunt (1961) and Englemann (1971) that pupil performance on school readiness and measures is definitely influenced by differential learning environments is given additional support by the findings of this study. Further, lower-class pupil populations tend to profit substantially from a structured type learning environment. (4) Lower-class pupil populations at the kindergarten level tend to need: (a) enthusiastic, dedicated and well-trained instructional personnel; (b) well planned long-range and daily programs of sufficient structure which may provide definitive learning experiences; and (c) supportive physical facilities and instructional materials for those learning experiences.

24. Moncada, Rita Corinna. A Longitudinal Observational Study Of the Behavior Of Low-Income Preschool Children At Home and In School Compared With the Behavior of Similar But Non-Schooled Children At Home. University of Minnesota, 1972. 400p. Adviser: Dr. James E. Turnure. 73-10,610.

Intervention programs for low-income children have not been preceded by observational research on such children's home behaviors, nor have there been subsequent investigations of the generalized effects of these programs in the home. This study asked: Would the home behaviors of low-income, two-year-old children change over time when the children attend a preschool designed to provide language stimulation? A time-sampling methodology was used to make observations on children and the adults with whom they interacted in the home and school settings. The conceptual hypotheses were that the experimental children would talk more and become more responsive with the adults and children at home.

A population of low-income, two-year-old children from a public health clinic was obtained by having parents volunteer their child to attend a free preschool. The population was stratified by sex and randomly assigned to experimental and control groups. The 12 experimental children attended a two-hour preschool on two days each week; no training was provided for the 12 control children.

An observation instrument was developed from codes described by Bijou et al., (1969), the Maternal Behavior Scale of the Harvard Preschool Project, and from pre-study observations. Objective measures relating to 18 child variables in the four categories of verbal behavior, non-verbal behavior with adults, non-verbal behavior with peers, and type of play were used. Twenty-three verbal variables and five non-verbal variables were coded for adults.

Data were collected in fifteen-second intervals on any of the 46 variables that occurred during the observation of a single subject and any adult with whom the child interacted. Observations were spaced over 18 weeks, and a total of 180 minutes or 720 separate 15-second time samples were collected on each subject in each setting.

The preschool was a structured tutorial program which emphasized language. There was one volunteer-teacher for every two or three children. Educational toys were used extensively.

A second observer coded the same events independently during two weeks of the study. Percentage of agreement scores ranged from 69% to 100% but were predominantly in the 80-90% range.

Group data comparing experimental and control children at home were analyzed by a one within, one between repeated measures analysis. None of the specific hypotheses was substantiated. Three of the hypotheses produced significant results which were in the opposite direction. Experimental children spent less time with adults at home than control children, they played alone more and they showed an increase in solitary play over time.

Children in both groups increased in verbalization and in speaking to adults at home over time. Adults in experimental and control homes did not differ significantly. An effect of the observer's presence in the home was seen on the first visit.

Group data comparing experimental children at home and at school were analyzed by a three-way analysis of variance. Children were more responsive at home than at school. Parents showed higher amounts of negative reinforcement than teachers. Teachers used significantly higher amounts of instructional behaviors.

Graphical analyses of individual children's behaviors provided data on differential effects of the preschool.

While status data gave evidence of a significant change in IQ scores for the experimental children on the Stanford Binet, data from this observational study showed the unexpected finding that children who experienced a preschool intervention engaged in more solitary play at home than control children.

25. Owens, James Lafayette. The Effects Of Three Intervention Programs On the Intellectual Functioning Of Four-Year Old, Black Preschool Children. University of Illinois at Urbana-Champaign, 1972. 130p. 73-10,017.

In the spring of 1971, 132 black preschool children ranging in age from three years, five months to four years, five months were studied to determine the effects of three intervention programs on their intellectual functioning. The following groups, all from the inner city of St. Louis, Missouri comprised the sample: 1. A group of children in a highly structured preschool emphasizing cognitive development. 2. A group of children in a less-structured preschool emphasizing personal-social development. 3. A group of children with no formal preschool experience but with daily regular exposure to the program Sesame Street, an instructional media intervention program. 4. A contrast group made up of children with no preschool experience and no home exposure to Sesame Street.

The samples were matched according to groups. The children were tested using the Preschool Inventory and the Boehm Test of Basic Concepts to measure the following criteria. 1. Personal-social responsiveness. 2. Associate vocabulary. 3. Concept-activation (numerical). 4. Concept-activation (sensory). 5. Assessment of school "readiness." 6. Mastery of basic preschool concepts.

The design for this study was the Posttest-only with a control group. Justification for this design is made when the subjects to be tested are very young and where the validity of a pretest is questionable. The children were tested in one setting. The average testing time for the two instruments combined was approximately 25-35 minutes. In order to increase the reliability of the results and to eliminate tester bias, the testers were used interchangeably in testing all four groups.

The following research hypotheses were tested in this study: 1. There will be greater change in the intellectual development of the children in the cognitive areas in the more structured intervention programs. 2. There will be greater change in the intellectual development of girls in the cognitive areas than boys in the four groups. 3. There will be greater change in the intellectual development of the children in the various groups in the cognitive areas than in the socio-personal areas as measured by the Preschool Inventory. 4. There will be a high positive correlation between total readiness ability as measured by the Preschool Inventory and knowledge of basic concepts as measured by the Boehm Test of Basic Concepts of all the children.

Stated in the null form the global hypothesis for this study was: There will be no difference in the method of intervention in the intellectual development of black children.

The hypotheses were tested utilizing the Multiple Linear Regression technique. The statistical analysis indicated that the rank ordering in terms of effectiveness was not as hypothesized but as follows: 1. Less-structured preschool. 2. Highly-structured preschool. 3. Sesame Street viewers. 4. Contrast group.

From this study it would appear that more emphasis should be placed on teacher effectiveness than on intervention models. More extensive college-preparatory programs and in-service programs for current preschool teachers should be designed.

26. Pfannenstiel, Mary Lou Theresa. Life-Experiences Of the Young Child: Environmental Analysis and Comparison. Kansas State University, 1972. 133p. 73-13,358.

All experiences are life-experiences when they deal with human life. Environmental life-experiences are those exposures and subjective interpretations of specific perceptions from all the surrounding influences which affect the individual: the physical and social components of the immediate conditions of life.

Life-experiences provide a foundation for the child's cognitive processes; the fundamental factors influencing equilibration of cognitively-oriented 1) symbolic activities, 2) knowledges, and 3) accommodations.

Children who are oppressed and stifled in their early life-experiences may be deprived of the foundation for learning, thinking, and happiness. The goal of providing beneficial life-experiences for the young child has become a national priority as evidenced by the increasing number of legislative, research, and influence agents becoming involved with education of the young child emphasizing experience, exploration, and natural accommodation of the intrinsic patterns of the child's human growth processes.

The study identified and compared environmental life-experiences of children entering first grade in three selected divergent environmental settings: village, metropolis-suburban, and metropolis-urban in the four medwestern states of Kansas, Nebraska, Iowa, and Missouri. These states were selected because they are adjacent geographically and provided populations for the study with assumed homogeneity within settings for testing the hypotheses. Sampling included 269 kindergarten pupils with an average age of 6.1.

The framework of the study included: 1) a priori assumptions, 2) hypotheses, 3) statistical testing of the hypotheses, and 4) analysis of pupil response as they related to designing curriculum.

The hypotheses of the study were 1) specific environmental life-experiences of a child can be identified as measured by the Environmental Section, Stanford Early School Achievement Test, Level 1; 2) similarities and dissimilarities of environmental life-experiences of children entering first grade in village, metropolis-suburban, and metropolis-urban school can be analyzed and compared; and 3) the evaluation of each child's environmental life-experiences can be used for designing his own curriculum.

Analysis of variance, the Scheffe Test for Multiple Comparisons, and item analysis were used to test the hypotheses.

The test used is published by Harcourt, Brace, Jovanovich, Inc., New York City, New York. The publishers provided guidance, research allowance, and assistance in critqueing the findings.

The conclusions of the study were: 1) the test identifies and measures specific environmental life-experiences of a child, 2) the analysis of variance and the Scheffe Test computer printouts verify significant differences of environmental life-experience sample mean scores in divergent environmental settings, and 3) the item analysis reveals similarities and dissimilarities of environmental life-experiences in divergent environmental settings with implications for designing curriculum.

The investigator recommends that not only environmental but all life-experiences be identified, analyzed, and compared to enhance the possibility of actualizing the maximal potentials of the child by providing the foundation for learning, thinking, and happiness. Further research of this context should place more value on the cognitive processes as they relate to life-experiences in the preoperational period of cognitive development.

27. Raygor, Betty Ruth Muntz. *A Five Year Follow-up Study Comparing the School Achievement and School Adjustment Of Children Retained In Kindergarten and Children Placed In A Transition Class*. University of Minnesota, 1972. 189p. 72-27,795.

The main purpose of the study was to compare the subsequent school performance and the school adjustment of two groups of children retained in kindergarten in a suburban school district. One group was randomly selected and placed in a Transition Group in which they received a relatively structured program, while the other group, the Kindergarten Retention Group, was placed in regular kindergarten classes.

The one-year Transition Group was given intensive readiness work in the areas of language and conceptual development and visual and auditory perception, with emphasis on sound-symbol relationships. The kindergarten classes received a regular kindergarten program which included some readiness work with emphasis on learning the letter names of the alphabet.

In addition to comparing the two retained groups, (Transition Group and Kindergarten Retention Group) both groups were compared with children (First Grade Potential Failure Group) who were promoted to first grade but for whom the prognosis for success was poor. Comparisons were also make between the two retained groups and randomly selected groups of children taken from the school population.

Testing procedures included pre and post testing on the Peabody Picture Vocabulary Test, The Bender Gestalt Test, and Metropolitan Readiness Test. Follow-up testing was done at the end of first, third and fourth grade using the Stanford Achievement Test, Primary I, Primary II, and Intermediate I. A Rating Scale by teachers was also used.

Results of the study suggest that retention in kindergarten was effective in ameliorating learning deficiencies to the point where the retained children were able to continue to make satisfactory progress in school achievement and school adjustment through the third grade.

Children in the Transition Group showed higher scores than those in the Kindergarten Retention Group on a readiness test at the end of the treatment year but there were no differences between the groups on academic performance or school adjustment at the end of third grade.

Comparisons of the two retained groups with a random sample of children from the same grade level (therefore, one year younger) showed no differences in most school achievement including reading, language, spelling, science, and social studies at the end of the third grade. Differences were found favoring children in the Random Kindergarten Group in arithmetic skills.

In the areas of school adjustment, it would appear that the children who were retained in kindergarten were perceived by their third grade teachers as having adequate social and emotional adjustment when compared with their classroom peers.

By the end of fourth grade, children in the First Grade Potential Failure Group were significantly lower in reading achievement than their peer group and all of their achievement scores were below grade level. The Fourth grade teachers rated the children in the First Grade Potential Failure Group lower in school achievement and school adjustment than their peer group.

It would appear that the Transition Group treatment did not produce any lasting differences between the two retained groups. However, children in the two retained groups (the Transition Group and the Kindergarten Retention Group), having been held back a year, were able to compete successfully with their peer group, while those in the First Grade Potential Failure Group continued in a pattern of poor achievement when compared with their peer group.

28. Sawicki, Florence B. The Effects Of Toy Talk Training and Experience On Low Income White Mothers and Their Pre-School Children. Arizona State University, 1972. 239p. Chairman: Dr. Robert D. Strom. 72-32,830.

The study purpose was to determine effects of Toy Talk training and experiences on low income mothers and their preschool children. Five Inquiries selected for investigation of change were: 1. Self-concept of mother as teacher. 2. Mother's perceptions of Teaching-Learning Process. 3. Self-concept of child as learner. 4. Verbal fluency of children. 5. Field Test of Toy Talk.

Twelve low income white mothers and their pre-schoolers volunteered for this seven week investigation. Treatment included a Pre-Post assessment of parent-child perceptions about mother as teacher, a time index of vocabulary gains, four demonstration-discussion meetings with parents, and visits to each home by the investigator.

Following the orientation, each mother used Toy Talk at home for one week with her child. Thereafter the investigator made weekly home visits to discuss progress, give demonstrations, and deliver new toys and units. This procedure was followed throughout the treatment.

During the first group meeting Adult and Child PAAT Inventories were completed. Parent post testing followed the final group evaluation. Post testing of children occurred during the last home visit. Together these sources were used to determine changes in mother's self-concept as teacher and child's view of self as a learner. A parent-child index discrepancy was used to show the relationship between mother view of self as a teacher and child percept of mother in that role.

All mothers submitted an individual record of their child's pre-post vocabulary responses. This information enabled the determination of individual vocabulary growth and the item difficulty level for selected vocabulary. A verbal dominance ratio and plot play duration scores were derived from two audio tapes of play sessions involving each child-mother dyad. Taped interval sessions of investigator-child play were used to ascertain verbal fluency change. Mid and final group meetings were held to relate parental progress and obtain recommendations for improving Toy Talk.

An investigation of instrument literature did not reveal any measure available to assess the self concept of parents as a teacher. Very few indices purport to show the self-concept of children as learners. An inventory which could accomodate both objectives was devised. From systematic review of Early Childhood literature the following subsets were identified to equally comprise the fifty items: Creativity, Frustration, Control, Play and the Teaching-Learning Process. By comparison of PAAT pre-post responses, the discrepancy index provides specific variance in mother's view of self as teacher and child's perception of her in that role.

CONCLUSIONS: 1. On the basis of comparisons of PAAT mean difference scores derived from t ratios, the change in mothers' self-concept as teacher that did occur between pre-post results suggested a positive increase because of treatment. 2. The t ratio derived from pre-post PAAT results indicated a significant gain ($<.025$) for mothers concerning knowledge about the Teaching-Learning Process. 3. As shown by PAAT t ratio scores Toy Talk involvement resulted in a positive change in children's self-concept as a learner. 4. Findings from data sources assessing gains in verbal fluency indicates vocabulary growth significance for recognition ($<.02$), understanding ($<.01$), and elaboration ($<.025$). Also, there was an increase in usage of elaborative language patterns. 5. Field testing of Toy Talk Curriculum provided valuable information that will enable improvement in the program content and procedure. 6. The post hoc discrepancy analysis suggested that the quality of the mother-child relationship is enchanced through Toy Talk activities. 7. Overall results of Toy Talk indicates more Teaching-Learning can occur in the home than previously assumed.

29. Scarth, Linda Loos. The Influence Of Certain Environmental Variables On the School Readiness Of Kindergarten Children. University of Georgia, 1972. 105p. Supervisor: Rachel S. Sutton. 72-34,144.

One hundred ninety three mother-child pairs were tested during the kindergarten school year. The subjects attended kindergarten programs in north and central Georgia communities. Only mother-child pairs on which complete data were collected were used in this study. The sample included a wide range of social and economic differences.

The children were administered the Metropolitan Readiness Test and the Peabody Picture Vocabulary Test. Mothers completed a shortened form of the Parent Attitude Research Instru- and a short questionnaire which along with school records were used to calculate the Index of Family Size and Density and the Hollingshead Two Factor Index of Social Position.

Means and correlations on all traits were calculated. Family size and density, maternal attitude (especially concerning the fostering of dependency and amount of intrusiveness), socioeconomic status and maternal educational level were correlated with the children's performance on the Metropolitan Readiness Test and Peabody Picture Vocabulary Test at the p .01 level. The one exception to this is no significant relationship between family size and density and the Metropolitan Readiness Test (fall administration). Most correlations were in the ±0.25 to ± 0.55 range.

Least square means and least squares analysis of variance were calculated for differences in socioeconomic status and maternal educational level.

In general the least square means for the three highest socioeconomic classes and maternal educational levels were not significantly different from one another but were significantly different from the lowest and often the lowest two socioeconomic and maternal educational levels.

The least square analysis of variance F values by socioeconomic status and maternal educational level were significant at p .01 for all the children's Metropolitan Readiness Test (total and subtests) and Peabody Picture Vocabulary Test scores except the fall administration of the MRT listening subtest which was significant at p. 05.

The F value for family size and density was significant at p .05 for socioeconomic status but not for maternal education.

Two subscales of the Parent Attitude Research Instrument and the total had high F values (p. 01) and several more were also significant at p .01 but at lower F values. The amount of dependency fostering and maternal intrusiveness appear to be important differences at the various socioeconomic status and maternal educational levels and do influence child test performance. The total PARI scale also appears to predict differences.

From this sample, it appears that environmental variables do influence the test performance of kindergarten children on standard first grade readiness and verbal tests. The obvious socioeconomic class difference is a predictor but components within this gross measure may be crucial differences. Family size and density, various maternal attitude attributes and the level of maternal education vary within socioeconomic class but particular characteristics of each are related to socioeconomic status.

Children who come from larger closely spaced families, have mothers who are intrusive and foster dependency, and are of lower socioeconomic and educational level are at a school readiness test disadvantage when any one, several or all of these characteristics are present.

30. Sears, Susan Jones. The Relationship Between Sociodramatic Play and School Achievement Of Second Grade Low Socioeconomic Status Black Children. The Ohio State University, 1972. 97p. Adviser: Professor Joseph J. Quaranta. 72-27,102.

The purpose of this study was to determine the relationship between sociodramatic play and school achievement in low socioeconomic status, black second-grade children. Research emanated from a seminar led by Dr. Sara Smilansky who has studied sociodramatic play and "culturally disadvantaged" children in Israel.

The setting included four schools in the inner city of a large midwestern city. Seventy students, thirty-six boys and thirty-four girls were studied. The variables were level of sociodramatic play, school achievement, age, sex, and IQ. Age, sex, and IQ were examined because of their suspected influence on school achievement. The California Short-Form Test of Mental Maturity was used to measure intelligence. Two measures of school achievement were employed in this study: the score on the Reading Section of the California Achievement Test and grade point average. Level of sociodramatic play was determined by the rating a child received during an observed thirty minute play period in a partially structured playroom. Stepwise regression was the data analysis utilized to determine if level of sociodramatic play could be used as a predictor of school achievement.

The following conclusions can be drawn from this research:

Four of the seventy children studied did not engage in sociodramatic play as defined by Smilansky. The remaining sixty-six did participate ranging from a rather low level of sociodramatic play to a greatly elaborated level. These findings are not the same as those of Smilansky who studied sociodramatic play among three-year-olds. The difference in the research findings may be a reflection of different cultural patterns regarding sociodramatic play. Further, basic differences between the low socioeconomic status children of this research and the "culturally disadvantaged" of Smilansky's probably exist. Low socioeconomic status children are not automatically culturally disadvantaged.

Sociodramatic play did not correlate significantly with either measure of achievement employed in this study. Therefore, it could not be used to predict the school achievement of this sample.

A successful sociodramatic player can categorize, generalize, discipline himself, concentrate around a given theme, create, cooperate, think abstractly, and communicate effectively. The school is urged to utilize sociodramatic play in the classroom to evoke the aforementioned skills, to improve them through practice, and to teach for their transfer to other situations.

No significant correlation between measured intelligence and sociodramatic play was found.

No significant correlation between sex and sociodramatic play was found. Skills necessary for successful sociodramatic play are demonstrated by both boys and girls.

31. Selz, Nina Arrenva. Effects Of Preschool Intervention Upon Minority Group Pupil Performance In Primary Grades. The University of Texas at Austin, 1972. 127p. Supervisor: Guy Manaster. 73-515.

The involvement of disadvantaged children in preschool education is a main educational event of the 1960's. A survey of recent evaluation reports has shown a need for investigating the effects of preschool intervention upon pupil performance as the child progresses through the public school system. This research studied the effects of preschool intervention on 72 Mexican American primary grade pupils in a low income urban area in San Antonio, Texas.

Performance data on achievement (Metropolitan Achievement Test), educational ability (STEA), and self concept were obtained from three groups of pupils. Group one were 24 children in the primary grades with no preschool intervention, group two were 24 peers who had attended one year of kindergarten, and group three were 24 pupils who had graduated from a bilingual Early Childhood Education Program. This program was conducted at the Good Samaritan Center under the direction of the Southwest Educational Development Laboratory. The Early Childhood

Program initially enrolled children at the ages of three, four, and five. Therefore, at the time of testing (January, 1972), Center graduates in the third grade had had one year of intervention training; graduates in the second grade, two years; and graduates in the first grade, three years of pre-school intervention.

There were few significant results. Overall, pupils who had preschool educational experiences had higher mean scores than children with no intervention. The treatment groups were equal in ability at each grade level, only the first grade kindergarten graduates differed significantly from the other groups on reading achievement, and there were differences in grades on self concept scores. Third grade children gave more realistic self concept scores in terms of a difference score between actual self concept and ideal self concept. First graders who were Center graduates had actual self concept scores that correlated positively with ability.

The number of years of preschool intervention had an appreciable effect upon reading achievement scores. Good Samaritan Center graduates with three years of preschool intervention made significantly higher mean scores on two (Word Discrimination and Work Knowledge) of the three reading achievement subtests.

32. Shontz, Donald William. A Comparative Analysis Of Agricultural Migrant and Inner City Negro Disadvantaged Preschool Children On Several Psychoeducational Dimensions. The Florida State University, 1972. 117p. Major Professor: F.J. King. 72-21,330.

This study was concerned with differences with cognitive development between two groups of economically disadvantaged Negro children. Performance on three tests for a sample of agricultural migrant children (N=205) from central and south Florida, was compared to the performance of a sample of children (N=246) from inner city Trenton, N.J., to determine whether there were differences in ability level or profile which might have implications for differential compensatory preschool education. The tests used in the study were:

1. The Cooperative Preschool Inventory (CPI)
2. The Children's Auditory Discrimination Inventory (CADI)
3. The ETS Matched Pictures Language Comprehension Test (MPT).

The scores for the combined samples on each test were factor analyzed, and factor scores were computed from the ten factors selected for rotation. The factor score vectors related to each test, and the total vector of ten factor scores for each sample, were compared using multivariate analysis of covariance. Standard score profiles on the factored variables were also compared.

The migrant and inner city samples were found to differ significantly in performance level on the total vector of ten factored variables, and on the factor score vectors for each of the separate tests. Inspection of the factor score profiles revealed that the migrant sample scored significantly higher than the inner city sample on five of the ten factored variables-two of the three CADI factors, two of the three CPI factors, and one of the four MPT factors. The inner city sample was superior on one MPT factor, and its performance was equivalent to the migrant sample on the other four factors. The migrant profile showed relative strength in auditory discrimination and on two of the factors related to general cognitive maturity, and relative weakness in language comprehension. The inner city profile showed relative strength on several language comprehension factors, and relative weakness on auditory discrimination tasks, general knowledge, and on tasks involving concepts which were not concretely represented.

The results were interpreted as being suggestive of some differences in cognitive language development between the two samples of Negro disadvantaged children, but several possibilities of bias which might have confounded the results were discussed. It was inferred that since race and socio-economic class were controlled, between-group differences in ability levels and profiles would be attributable to differential experiences encountered by each group in its respective physical and subcultural environment.

It was implied that if different subcultures of the disadvantaged population foster different levels and/or patterns of abilities these differences must be identified so that specific prescriptive preschool programs could be implemented. The need for the development of age-sensitive instruments to profile the skills and knowledge of subgroups of disadvantaged preschoolage children was emphasized so that group-related functional deficits could be identified and remediated.

33. Smith, Janet Delita. A Developmental Study: Socioeconomic Status, Race, and Incidental Learning. Michigan State University, 1972. 158p. 73-12,823.

The purpose of this study was to question whether there were differences in incidental learning as a function of (1) grade - kindergarten, first and second; (2) socio-economic status - middle and lower; (3) race - black and white; (4) familiarity - common and uncommon - of stimulus materials. The study also sought to investigate what effect the inclusion of incidental stimulus materials would have on the intentional learning task.

Thirty two kindergarteners, first and second graders were randomly assigned to either the experimental (N=16) or control condition (N=16). The children at each grade level were systematically selected to include four black and white children from both middle and lower socio-economic home environments respectively. Each set of four systematically included two boys and two girls. One half of the subjects in each group were assigned to a white and the other half to a black experimenter for individual treatment and testing.

The experimental treatment consisted of reading a story to the child while he viewed slides related to the story. Included at various locations in each of 16 slides were selected yet unrelated items. Eight items were classified as 'common' and the remaining eight as 'uncommon' to the children. The child was instructed to listen to the story and to attend to those pictures to which the story made reference. He was given no instructions concerning the unrelated items in the slides. The control subjects were told the same story and viewed a set of slides which did not include incidental and unrelated items.

Experimental subjects were subsequently tested for incidental learning by means of a recall procedure of the unrelated items followed by recognition of the same items from a set. Both groups were tested for intentional learning by questions related to the story.

Five research questions were considered. These related to whether there were significant differences in incidental learnas function of (1) grade level in school (kindergarten, first, and second); (2) middle versus lower socio-economic home environment; (3) race (black versus white); (4) novelty (common versus uncommon) of the stimulus materials; and (5) the mode of response, i.e., recall versus recognition. A multivariate analysis of variance at an alpha level of .05 was used to test these hypotheses.

An additional hypothesis was designed to determine significant differences between groups on their intentional learning scores. A one way analysis of variance was used to test this hypothesis at the .05 alpha level of significance.

While sex of the subject and race of the tester were not central variables in the experiment, an equal number of boys and girls were included within each cell. The design was also balanced between race of tester and race of subject. Additional hypotheses could therefore be related to these factors.

Metropolitan Readiness test scores for Kindergarten and Stanford Achievement test scores for first and second graders were obtained as possible sources for understanding the results. Pearson Product Moment correlation coefficients were also computed for incidental with intentional learning scores.

Analysis of the data supports the following conclusions:

(1) There were differences in favor of the higher grades as seen by recall and recognition of stimulus material.

(2) Considered in conjunction with grade or sex, and race of tester, children from middle socio-economic home environments performed at a higher level on both recall and recognition of both common and uncommon objects.

(3) There were apparent sex differences in favor of female subjects on both recall and recognition of incidental items.

(4) Subjects assigned to black and white testers did not vary significantly in their incidental scores by racial identification. However, some variation associated with socio-economic background was evident.

(5) There were no significant variations by grade, socioeconomic background, or race on the intentional learning scores of subjects who were simultaneously exposed to intentional and incidental stimuli and those who were exposed only to intentional stimulus items.

(6) Incidental scores were positive and significantly correlated with intentional scores for kindergarteners, and to a lesser extent for second graders. Correlations were low or negative for first graders.

34. Toole, Dorinne M. A Comparison Of Attitudes Of Day Care Aides and Authorities In Child Development Toward Selected Child-Rearing Practices. State University of New York at Buffalo, 1972. 109p. Adviser: Dr. Richard T. Salzer. 72-23,861.

The major function of this study was a comparison of attitudes of experts in the field of child development and aides in day care centers toward certain child-rearing practices.

The day care personnel involved in the study were from 25 centers in and around a large Eastern city. Sixty-two experts, namely developmental psychologists, were selected from 40 states and several Canadian provinces.

A modified instrument derived in part from the Parental Attitude Research Instrument (PARI) was used to determine the attitudes held by the aides and experts. The rating scale consisted of 45 items concerned with child-rearing practices. Each item contained four categories: A, strongly agree; a, mildly agree; d, mildly disagree; and D, strongly disagree. The researcher arbitrarily applied the value of 3,2,1, or 0 to each category depending on her preference.

The t test was used in order to determine which items revealed a significant difference of opinion between the aides and the experts.

Two t test models were employed with the data depending on whether or not the two groups had similar or dissimilar variances. The F ratio also afforded an additional means by which the two groups could be compared. If one group had a significantly greater variability, it indicated that the group was more heterogeneous in their opinion.

It was determined through the analysis that there were 20 out of the 45 items on which the experts and aides differed significantly in mean scores ($p < .01$).

There were 15 items out of the 45 on which the experts and the aides not only achieved significantly different mean scores (p< .01), but on which the variability of the two groups was significantly different (p< .01). The two strongest areas of disagreement in which the difference in attitudes was significant were in the parent-child relationship and the sex groupings.

Of the 45 items on the rating scale comparing the attitudes of the aides and the experts in the field of child development toward certain child-rearing practices, there were a total of 24 items (53%) which revealed a significant difference in attitudes at the .01 level.

Evidence from this study clearly indicates that some day care staff are disposed to condemn child behaviors which are either unimportant or wholly natural in the view of some experts in child development and are also prepared to insist on standards unrealistic for the children under their care.

Those responsible for selecting and organizing in-service programs for day care personnel may well find the instrument of use in identifying problem areas.

It should be noted that day care staff members may be reflecting social-class orientations to child-rearing and that in low-income areas the staff and parent groups may be from similar backgrounds and therefore closer to each other's viewpoints than to those of the authorities.

35. Wampler, Helen Elizabeth Lenker. A Case Study Of Twelve Spanish Speaking Primary Children Concerning School Achievement and Socialization. The Pennsylvania State University, 1971. 187p. 72-19,396.

The purpose of this study was to determine whether the Olguin-Visual Method of teaching English as a Second Language to Spanish speaking children prepares them for subsequent school achievement and socialization.

The sample of 12 Mexican American children was obtained from the self-contained kindergarten and first grade classrooms of the Smith School in Huntington Beach, California, where their progress was being impeded by their inability to speak English. They came from families with incomes of less than $3,000 per year, and were believed by the investigator to be typical children of Mexican origin with varied abilities.

The teaching procedure was a combination of a method devised by Leonard Olguin based on the physical reproduction of the 40 English language sounds, and the Phonovisual Method of Schoolfield and Timberlake. The instructional period was from December, 1969 through May, 1970.

The children were pre-tested and post-tested to locate their difficulties in the pronunciation of English sounds and to measure their fluency in the English language, their levels of maturity, and their reading readiness or achievement. With the exception of one child who refused to speak into the microphone for the language tests, all children showed satisfactory improvement in their test scores at the end of the instructional period.

Eight months later, an investigation was made of the children's progress, and the data thus obtained was used to compile a case study of each child.

As a part of this investigation, the same tests were given as re-tests, and the results showed gains over the scores at the beginning of the instructional period as follows:

1. Diagnostic Sound Test: Gains of from 15 to 27 points in sound production, with two children scoring 30 on a scale of 33; and gains of from 5 to 9 points in fluency, with three children scoring the maximum 10 points;
2. "Draw-A-Man" Test from the Metropolitan Readiness Test: Gains of from 1 to 3 levels of maturity on a scale of 5, with one child rated superior, nine above average, one average, and one below average;
3. Metropolitan Readiness Test administered to the eight kindergarten children (by this time in first grade): Gains of from 20 to 53 points, with three children scoring between 70 and 78 on a scale of 100;
4. Wide Range Achievement Test, administered to the four first-grade children (by this time in second grade): Gains of from 18 to 25 points, with one child at the 3.7 level.

Cooperative Reading Achievement Tests were administered in May, 1971 in the children's regular classrooms, and showed only two children at much below grade level.

Interviews with parents, following a Parent Interview Guide which had been prepared, produced evidence that there was little re-enforcement in the home of the English-as-Second-Language training the children were receiving, but that parents and older siblings felt an interest in the children's progress and encouraged their efforts.

Teachers, similarly interviewed, reported that the children had improved noticeably in their use of English, that three of them were in top reading groups and the rest all had improved, and that other school achievement could be attributed, at least in part, to attendance at the English-as-a-Second-Language classes. School records for the 1970-71 school year showed that two of the children achieved B+ over-all grade averages; six achieved B averages; three achieved C+, C, and C- averages respectively; and only one of the children was graded D and would be retained in her grade a second year.

Teachers reported increased socialization between the children in the study and Anglo-American children, and this was confirmed by sociogram findings.

Family and Community Influences
The Achievement of Students

36. Frost, Joe Lindell. The Relationship Of Welfare Recipiency Status To Academic Achievement Of Rural Elementary School Children. University of Arkansas, 1965. 81p. Major Professor: Dr. O. Ray King. 65-8450.

The major purpose of this study was to determine the relationship between welfare recipiency status and academic achievement of rural elementary school children. Generally stated the questions to be answered were: (1) what significant relationships exist between welfare recipiency status and "School Variables" (2-10), (2) in what areas of school achievement do welfare recipient children tend to be most successful and least successful, (3) what significant trends are revealed in academic achievement, mental maturity, and personality development across grade level lines, (4) what is the relationship between welfare recipiency status and enrollment in a special classroom, (5) what significant differences are evident between welfare recipient children enrolled in multi-grade and those enrolled in single-grade classrooms, (6) what significant relationships exist between welfare recipiency status and "Home Variables" (18-27), (7) on the basis of information gained, what factors most clearly characterize the rural welfare recipient child, and (8) on the basis of information gained from this study, what recommendations can be made to teachers of welfare recipient children and to administrators?

Data were collected and analyzed from standarized tests, school records, interviews, sociograms, and rating scales. Information about twenty-seven separate variables was analyzed with the aid of a 650 computer. The population for this study included every child (62 welfare recipient, 294 non-welfare recipient) enrolled in a selected rural Arkansas elementary school during the academic year 1963-64.

On the basis of the findings of this investigation, it was concluded that:

1. Welfare recipient children, with few exceptions, are retarded in academic achievement--reading, arithmetic, and language.
2. Welfare children tend to earn below average mental maturity scores.
3. Welfare children achieve near average personality scores.
4. Welfare children are not as acceptable for friendships by their peers as are non-welfare recipient children.
5. Welfare children are rated lower on the Preference to Teach Scale than non-welfare children.

6. Welfare children read large numbers of books, but only two-thirds as many as non-welfare children.

7. Welfare children achieve highest in arithmetic and lowest in reading.

8. Welfare children, upon entry to first grade, tend to be retarded in ability to profit from school experiences.

9. The achievement of welfare children, as they progress across grade levels, reflects continuous but uneven progress.

10. In the special classroom for slow learners, fourteen of fifteen enrollees were welfare children.

11. The academic achievement of welfare recipient girls is significantly superior to that of welfare recipient boys.

12. Welfare children enrolled in multi-grade classrooms tend to earn higher academic achievement and personality scores than other welfare children (they score lower on mental maturity tests).

13. Factors reflecting participation in total family social activities (church attendance and vacations) correlate significantly with the academic achievement of welfare children.

14. The typical welfare recipient child is absent from school eight days per semester; he has attended two schools and rides a school bus. The chances are one in four that he has visited a dentist during his lifetime. He has seven siblings and lives in a five room house; church is attended twice a month. The chances are one in three that the home has running water but nine in ten that it is

Parents exhibit little concern for their children's school progress, evidenced by the fact that only 11% ever attended a P.T.A. meeting, and only 16% have visited their child's classroom. On the other hand, the chances are one in two that parents have taken the child on a family vacation or have attended a regularly scheduled parent-teacher conference.

37. Griffen, Joyce. Family Structure and School Performance: A Comparative Study Of Students From Three Ethnic Backgrounds In An Integrated School. University of Pennsylvania, 1965. 74p. Supervisor: Murray G. Murphey. 65-13,334.

The school records of Anglo, Spanish-American and Ute Indian children who have since 1956 attended the same consolidated school in a small town in southwestern Colorado indicated that there were, in addition to differences in education-related skills taken from the school experience by the students, performance differences as measured by the school year in which an individual's best marks, considering academic subjects only, were obtained.

It was advanced that the pattern of school performance is related to the structure of the family of orientation, the hypothesis being that a different value of and reward for dependent behavior is found within each family type and that children will therefore exhibit different behavior in the formal learning situation, here conceived, administered and taught by individuals overwhelmingly of one family type.

Eliminated from the study were students whose ethnicity could not be definitely ascertained or was inapplicable to the population being studied and those for whom available scholastic, economic and family background information was not sufficient. The school records of the remaining 356 students were scored for grade of peak performance and personnel of each family represented was noted. It was established that the time of peak academic performance was not determined by socio-economic status or by sex.

Types of family structure were derived by successive subtractions according to the number of adults present to be depended upon; first, nuclear and "all other," and then the latter, after elimination of broken and nuclear-reconstituted, was divided into those types described historically for the minority groups, one of which has been characterized elsewhere as socializing consistently for dependent behavior.

It was found that children from the extended family type, a three-generation family and that asserted to encourage dependence, did in fact achieve peak performance in school later than children from the other types of families--grade III.1 on the average, whereas children of "grandparent families," a type seemingly rather similar to that described for aboriginal Utes, achieved peak performance at grade II.4. This family type was described with special emphasis on the dependence-independence dimension.

The author concluded that while other forces undoubtedly affect the child's school performance, the time at which he performs most highly is related to the structure of his family of orientation, especially insofar as different types of families can allow and do reward to a different extent habits of dependence and independence.

38. Miller, Joe Hal. The Relationship Between School Mobility and Academic Achievement Of Sixth Grade Students Of Culturally Disadvantaged and Middle Socio-Economic Neighborhoods. Indiana University, 1966. 99p. Chairman: Ronald C. Welch. 67-4022.

The purpose of this study was to determine whether the academic achievement of sixth grade students was influenced by the rate and type of school change experienced. The major emphasis of the problem was on the effect of mobility on students in culturally disadvantaged and middle socioeconomic neighborhoods. Included within the study were comparisons between achievement scores of mobile and non-mobile students in seven subtests of the Stanford Achievement Battery.

Ten schools in neighborhoods identified as culturally disadvantaged and ten schools in neighborhoods identified as middle socio-economic were selected for study. Each of the 20 schools was visited and the data were recorded from individual student record folders for all mobile students showing three or more school changes by the sixth grade and all non-mobile students.

Each mobile student was matched according to school records by IQ and sex with a non-mobile student. The individual pairing of mobile and non-mobile students was maintained throughout the study regardless of how treatment groupings were structured. Only 224 mobile and 224 non-mobile students out of a total of 1,496 were matched on IQ and sex; 115 pairs in culturally disadvantaged schools, and 109 pairs in middle socio-economic schools. The two socio-economic groups were treated separately.

A statistical comparison utilizing the t-test for paired observations was made to determine whether differences existed between the mean achievement scores of the mobile groups and non-mobile matched groups on the seven achievement tests. The 5 percent level of confidence was used to determine the significance of the difference.

The culturally disadvantaged group showed heavy intra-city mobility while the middle socio-economic group showed greater migrant mobility. The culturally disadvantaged group showed a greater mean number of school changes than the middle-socio-economic group.

No significant differences were found between the mean scores of mobile and non-mobile matched student groups in culturally disadvantaged schools on 47 of the 49 comparisons. A significant difference was found between scores in Arithmetic Applications of high mobility students and non-mobile matched students which favored the latter. A significant difference was also found in Paragraph Meaning of very high mobility students and non-mobile matched students which favored the mobile students.

Significant differences were found between scores of mobile and non-mobile matched students in middle socio-economic schools in the subtests of Language and Arithmetic Concepts when the students were grouped according to migrant mobility, high mobility, and total mobility which favored the latter. Mean scores of mobile and non-mobile matched girls in the Language subtest differed significantly in favor of non-mobile girls. Significant differences in favor of non-mobile middle socio-economic students were found in the subtest of Word Meaning when the students were grouped according to mobility of girls, high mobility, and total mobility.

Mobility did not seem to play a significant role in the academic achievement of culturally disadvantaged students. The influence of mobility on sixth grade students in middle socio-economic schools seems limited to the areas of Language and Arithmetic Concepts and is apparently related to the incidence of migrant mobility. Girls are more affected by mobility than boys.

Recommendations: Less concern should be directed to the influence of student mobility on academic achievement in culturally disadvantaged neighborhoods than to the improvement of the total program in these areas. Schools should develop means for expediting the transfer of student records between school systems and developing programs of comprehensive evaluation, orientation, and remedial instruction for pupils entering from other school systems. Further research is needed which will determine how students in various socio-economic levels perceive the school and what programs and methods of instruction are best suited for realizing the greatest individual student development.

39. Rankin, Jr., Paul Tory. The Relationship Between Parent Behavior and Achievement Of Inner City Elementary School Children. The University of Michigan, 1966. 188p. Chairman: Stanley E. Dimond. 66-14,577.

The purpose of this investigation was to determine what specific kinds of parental behavior are related to the scholastic achievement of inner city elementary school children.

Samples of thirty-two high achievers and thirty-two low achievers were selected from 241 third and fourth graders at the Franklin Elementary School in the inner city of Detroit. The 241 children were rank ordered from highest degree of overachievement to lowest degree of underachievement in terms of differences between their percentile scores on standardized achievement and learning aptitude tests. The high achievers were selected entirely from the highest quartile of the rank ordered list and the low achievers from the lowest quartile.

An interview schedule was developed to measure the extent to which parents of the sample members had engaged in many kinds of behavior considered potentially related to children's scholastic achievement. The mothers of all sixty-four high and low achiever sample members were interviewed personally by the investigator. Interview questions asked about behavior of both mothers and fathers.

The specific kinds of behavior which showed statistically significant differences (at the 5 per cent level) between high achievers' parents and low achievers' parents are listed below. In every case the parents of high achievers reported more or greater frequency of the behavior than did the low achievers' parents.

Provision of experiences for children (forty-six kinds of behavior examined).--1. Taking their children to a parade. 2. Helping their children save money or purchase saving stamps. 3. Playing outdoor games or sports with their children. 4. Attending church with their children. 5. Talking with their children about parents' lives before the children were born. 6. Talking with their children about matters in the news.

Interest taken in children's school activities and in their scholastic achievement (thirty-eight kinds of behavior examined). --1. Talking with children about the kind of work children were doing at school. 2. Talking with children about special activities at school. 3. Attempting to find the reason for poor work and helping the child correct it when he did a poor job on a schoolwork assignment. 4. Desiring that children go to college. 5. Requiring for their satisfaction that children attain high marks in school.

Behavior related to development of children's interest in reading (thirteen kinds of behavior examined).--1. Having children read aloud to their parents. 2. Asking children to tell their parents about stories the children had read. 3. Mothers reading to themselves at home. 4. Parents reading magazines at home.

Parents contacts with school personnel and participation in school sponsored activities (fourteen kinds of behavior examined). --1. Conferring with the school principal or assistant principal. 2. Taking the initiative in requesting conferences with the principal or assistant principal.

Motivation and control of children's behavior.--Of the twelve kinds of behavior examined which concerned motivation and control of children's behavior, none showed a significant difference between the parents of high achievers and the low achievers' parents.

In conclusion, the scholastic achievement of inner city elementary school children appears to be positively related to (1) the amount of interest taken by parents in their school activities, (2) the extent to which parents encourage their interest in reading, (3) the level of parents' aspirations for their educational attainments, (4) the extent of parental communication with school personnel, and (5) the extent to which parents share experiences with children.

40. Kelley, Edwin Vincent. *The Interaction Of Educational and Family Factors On Selected Sixth Grade Caucasian Rural Migrants To A Large Urban School*. University of Illinois, 1967. 135p. 67-11.872.

During the last quarter of a century, a large segment of the Appalachian and Southern rural population has migrated to the great cities. Sections of the cities have become "ports of entry" for such migrants. Administrators and teachers in schools which serve these communities often face what they feel to be slum conditions, parental apathy, and excessive student transiency. This study hypothesized that there was no significant relationship between the school factors of achievement and adjustment and the home factors of parent behavior, certain socio-economic factors, and measures of transiency.

Sixty-eight 6th grade Caucasian boys and girls were selected.

The family backgrounds were rural southern or Appalachian. They all attended the same large elementary school in a great Metropolitan Center. School data were obtained through the use of the California Short Form Test of Mental Maturity and the Metropolitan Achievement Test--Intermediate Battery. Sociometric devices measured teacher and peer ratings of school social adjustment. The writer visited the home of each student and scored the following six items of the Fels Parent Behavior Rating Scales: 1. General Protectiveness; 2. Coerciveness of Suggestion; 3. Severity of Penalties; 4. Disciplinary Friction; 5. Effectiveness of Regulations; 6. Adjustment of the Home. Socio-economic and transiency data were also taken in the home visit.

Major findings of the study are summarized as follows:

1. Mean intelligence and achievement test scores placed these children in the "low-normal" intelligence range, two years below grade placement in Reading skills, one and one-half years below grade placement in Spelling, and one year below grade placement in Arithmetic skills.

2. Significant Pearson product-moment correlations were found to exist between higher student scores on intelligence and achievement tests and the observed degree of parental protectiveness of the child, less disciplinary friction between parent and child, parents report of greater effectiveness of their regulations, and the observers' higher ratings of the general adjustment of the home.

3. There was little or no Pearson product-moment correlation between student scores on intelligence and achievement tests and the observed degree of coerciveness of parental suggestions to the child or severity of parental penalties.

4. These families all fell into the lower socio-economic class. However, significant Pearson product-moment correlations existed between families scoring higher on the socio-economic inventory and students scoring higher on intelligence and achievement tests.

5. All measures of transiency showed little or no point biserial correlation with intelligence test scores.

6. A low positive point biserial correlation to higher achievement was found for those who had to adjust to less than 3 large city school situations.

7. The observed parent behaviors of less disciplinary friction in the home, greater reported effectiveness of parental

regulations, and better adjusted homes showed a significant biserial correlation with high teacher and peer ratings of school social adjustment.

8. The group whose mothers and fathers had finished 8th grade were rated (chi-square) by teachers and peers as significantly more well adjusted than those whose parents had less than 8 years of school.

9. No significant chi-square differences were found between family income, family receiving welfare payments, occupation of the major working parent, number of adults present in the home and teacher-peer ratings of school adjustment.

10. Teachers rated those who had lived in the large city for longer periods of time as significantly more well adjusted (chi-square).

11. Peers rated those who had been in this particular school for longer periods of time, those who moved fewer times, and those who had to adjust to fewer new school situations as significantly more well adjusted (chi square).

41. Purdy, Joseph Donald. Associative Learning Rate of Second-, Fourth-, and Sixth-Grade Indian and White Children Using A Paired-Associate Learning Task. The University of Oklahoma, 1968. 70p. Major Professor: P.T. Teska. 68-17,486.

Intelligence is usually measured by what a child knows or what kinds of problems he can solve. The degree to which a child has had an opportunity to interact with his environment and the degree to which his mind assimilates and understands his experiences in this environment determine what kind of score he will obtain on a mental test.

In the past, attempts have been made to measure the intelligence of North American Indians. It was found that Indian subjects do as well as or better than white subjects on performance tests of mental ability, but they do not do as well as white subjects on verbal tests of mental ability. It was assumed that the reason for the lower verbal scores was insufficient acculturation into the white culture and inadequacy of test standardizations rather than deficiencies in innate intelligence .

The problem was to determine if Indian children from a rural, deprived environment would learn a 16-picture paired-associate learning task with fewer trials or fewer errors than would a group of white children from a low to middle socioeconomic urban background, when both groups were matched for sex, grade, and Otis IQ score. The purpose was to show that Indian children would learn the task with fewer trials or with fewer errors than would the white children in spite of the fact that the white children, because of the encouragement and the emphasis placed on obtaining a good education, probably have developed better attitudes towards themselves and their ability to learn and to do well on tests of all kinds; and thereby suggest that environment, background, and culture play an important role in influencing an IQ score, which may not accurately reflect the actual innate intelligence of children from socially deprived cultural environments.

The Otis Quick-Scoring Test of Mental Ability was administered to a large group of second-, fourth-, and sixth-grade urban white and rural North American Indian children living in Eastern Oklahoma. Those who obtained an IQ score between 90 and 110 were then randomly selected, except for equating for sex, until 72 children at each grade level, 36 whites and 36 Indians, had been selected. These children were then given a 16-picture paired-associate learning task. The results of this testing revealed that the Indian children at all grade levels required fewer trials and committed fewer errors than did the white children. An F test and then a pooled-variance t-test (Popham, 1967) were used in the statistical analysis of the data. A statistically significant difference on the trial score, at the .05 level, was found between the Indians and whites in the sixth grade.

The conclusion reached as to why the Indians required fewer trials than did the whites in the sixth grade was that the Indians were probably innatley more intelligent than were the whites, even though they had the same Otis IQ scores, and in spite of the fact that the whites probably had developed better attitudes towards themselves and their ability to learn and to do well on tests of all kinds.

42. Smith, James David. The Impact Of Visual Symbols In the Environment On Selected Inner-City and Suburban School Populations. University of Oregon, 1969. 116p. Adviser: Vincent Lanier. 70-9472.

This study was conducted in Portland, Oregon as an investigation of the variance between two contrasting urban public high school populations. The focus of the problem was in the meaning and interpretations young adolescents obtained from transaction with visual imagery in the physical environment. The study attempted to ascertain under controlled conditions, significant differences and similarities in social perception from a randomized selection of students, in response to selected visual symbols indigenuous to the inner-city.

The research question assumed that discrepancies in perception of visual symbols in the physical environment could result in disruptive behaviors by students during upper school years. It has been observed that within the shifting populations of the inner-city, there is a great range of human behaviors. This variability indicates that individuals might interact with and respond to the same visual stimulus very differently. There is no known empirical study investigating the causes of social discord and repressions under-in-school conditions as related to the impact of environmental visual stimuli on the student.

Two heterogeneous groups of high school ninth graders* participated in this study with a total N of 95. Ss attended, either, a high school located in a disadvantaged neighborhood or a high school located in a non-disadvantaged neighborhood. The disadvantaged neighborhood school was represented in this study by 47 Ss: 25 boys and 22 girls. The contrasting school was represented by 21 boys and 27 girls.

The data of this study were obtained through content analysis. Open-ended protocols and responses to a structured scale were the sources that provided content for evaluation. Both qualitative and quantitative methods were used in assessing responses. A chi-square test of significance was applied to and computed for six relationships, between groups and within groups. All relationships were anlayzed over the total number of stimuli. Ss were shown fifteen slides (the stimuli) projected on a standard screen in three categories of symbols: "people," "places," and "objects." Ss recorded written responses in individual booklets.

Major Findings and Conclusions: Comparing these two dichotomous populations, the vital differences between them should be obvious. There are well-formulated, even obsessional opinions that students who attend a school in a disadvantaged neighborhood are by association, visually illiterate, low achievers, very different from other youths, disobedient to authority, violence prone, or worse. These opinions do not recognize the unconstitutional conditions that have made the disadvantaged student a functional deviant and the advantaged student less so. Those notions, however, are theoretical. The data obtained from the open-ended category revealed that the mean number of subjects from the non-disadvantaged neighborhood school tended to be more often negative in their interpretation of all images (slides) than the contrasting school.

A clear majority of both groups perceived hand guns as symbolic of violence, but twice as many Ss from the non-disadvantaged neighborhood school perceived hand guns with favor. The non-disadvantaged group was less sympathetic toward the police over a mean of responses to three appearances of that image. The structures scale indicated no response consistency that was "skewed" in any one direction, save the evidence in the open-ended category. However, girls responded more like than unlike in what they perceived as meanings. Subjects reaction to an image was not always constant when perceived in different contextual frames. The findings suggest that one's perceived meaning of a symbol or event can be modified depending upon the content of the stimulus.

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*The school district operates on the 8 - 4 plan.

When the total number of relationships among and between groups is considered, only seven significant differences at the p 0.05 level or above are found from computation of chi square on each image and relationship category. No authoritative rationale was presented for the low non-significant outcomes of variance between schools. However, one may venture the hypothesis that the groups were far more homogeneous in ideology than thought to be.

One of the most important observations was that the abyss of degradation that poverty entails was not reflected in significant differences of the associative meanings expressed by the Ss who attended the school in the disadvantaged neighborhood as compared to their counterparts. The range of the sample made it implausible to extricate and identify subjects in abject poverty.

43. Smith, David Lavon. A Study Of the Relationship Between Parental Attitudes Of Nez Perce Indians and the Achievement Of Their Children. University of Idaho, 1970. 104p. 70-27,217.

The purpose of this study was to (1) determine the achievement of fourth-, fifth-, and sixth-grade white and Nez Perce Indian children in the Lapwai Public Schools; (2) determine the parental attitudes of the populations toward the public schools; and (3) determine the relationship between the achievement of the children and the attitudes of the parents. Further, a study was made of the relationship between the extent of Indian blood and the achievement in the school environment.

The Stanford Achievement Test was utilized as a measure of academic achievement and was administered by the guidance counselor in the Lapwai School District. A pilot study was conducted to refine an attitude toward education scale for assessment of parental attitude. The inventory was administered to each respondent in his home in both the pilot and the larger study.

Achievement data analysis revealed that there were no significant differences between achievement of white and Indian students in the fourth grade. However, significant differences did exist at the fifth- and sixth-grade levels. Sex differences with respect to achievement within ethnic groups were not significant. In general, achievement and extent of Indian blood showed little relationship.

Parental data analysis demonstrated that a significant difference existed between the two ethnic parental groups with respect to those who had completed high school and those who had not. However, even though the Indian group exhibited less congruence in their attitude scale responses than their white counterparts, the differences were not significant.

A comparison of student achievement with their parent's attitude rating indicated that no positive correlation exists between these two variables.

Conclusions drawn and recommendations suggested were: (1) current educational practices are not meeting the needs of the Indian student; (2) Indian and non-Indian parental groups express a positive attitude toward education; (3) parental attitude toward education and educational attainment as measured by the instruments used are not closely related; (4) educational change is needed, but sufficient research should be conducted to insure that new programs are not detrimental and meet the needs of the Indian student; (5) a study of personality adjustment and achievement of Nez Perce Indian students should be conducted; and (6) further investigation of parental attitudes of ethnic groups should be carried out to determine what parental attitudes do influence student achievement.

44. Webb, James Boyd. A Comparative Study Of the Relations Of Broken Homes To the School Success Of High School Students. The George Washington University, 1970. 137p. Director: Wesley Thomas Carroll. 70-27,250.

The purpose of this investigation was to study the relationship of a broken home to a student's achievement, measured by grade-point average, with regard to these factors: (1) type of home, (2) grade level, (3) sex, (4) age (in months), (5) School and College Ability Test score, (6) work habits and ability to cooperate, (7) days absent, (8) days tardy, and (9) participation in extracurricular activities.

The sample, chosen from Washington-Lee High School, Arlington County, Virginia, contained 206 eleventh- and twelfth-grade students from broken homes, who were matched with 206 eleventh- and twelfth-grade students from unbroken homes. Data were obtained from student's permanent records and counselor's records.

The research design utilized multiple regression in steps with the least significant variable being eliminated on each regression cycle. Additional multiple regression operations were conducted, with the sample being further divided by sex and type of home. Obtained data were coded on punched cards, and data processing was used for regression procedures. Significance was established at the .05 level.

The findings, including beta weights, zero order correlations, and percentage contribution of significant variables (.01) to the criterion variance, are indicated below.

Variable	B	r	Percentage Contribution
1. Work Habits and Ability to Cooperate	-.33	-.60	.20
2. School and College Ability Test Score	.26	.52	.14
3. Participation in Extra-curricular Activities	.17	.48	.08
4. Days Tardy	-.07	-.29	.02
5. Sex	.09	.21	.02
6. Type of Home	.09	.00	.00

R Square.................................. .53
Multiple Correlation Coefficient.......... .73
Standard Error of Estimate................ .50
Regression Equation:

$$Y = -1.16-.05X_1+.01X_2+.04X_3-.01X_4+13X_5+.04X_6$$

The findings suggest the following conclusions concerning the predicative value of the selected variables to indicate success or nonsuccess in academic achievement:

1. The proportion of the variance of the dependent variable, academic achievement, attributable to the joint action of all nine variables, is a little over .53.
2. In all comparisons of students from broken homes with those from united homes, those from the latter were more successful.
3. SCAT scores and work habits and ability to cooperate were about equal in their influence on school success for both types of home.
4. Participation in extracurricular activities, days absent, days tardy, sex, and type of home were influential to a lesser degree.
5. Type of home and participation in extracurricular activities were significant factors for boys and not girls.
6. Participation in extracurricular activities was a significant factor for students from broken homes but not for students from united homes.
7. Days absent was a significant factor for all students except those from the "father only" group.
8. Students from united homes were 6 per cent more successful in academic achievement than students from broken homes.
9. Girls were 16 per cent more successful than boys in academic achievement.
10. Boys from united homes were about 8 per cent more successful than boys from broken homes when compared by SCAT scores.
11. Girls from united homes were about 4 per cent more successful than girls from broken homes when compared by SCAT scores.
12. Students from united homes were about 6 per cent more successful than students from broken homes when compared by

extracurricular activities.

13. Students from united homes were about 8 per cent more successful than students from broken homes when compared by age.

14. Girls from all types of broken homes except those from the "father only" group were about 25 per cent more successful, whereas the boys were 40 per cent more successful.

15. Students from united homes were about 20 per cent more successful when compared by days absent.

45. Cummings, Scott Brian. The Influence Of Familty Life On the Scholastic Performance Of Urban High School Students: A Critical Examination Of the Cultural Deprivation Hypothesis. The University of Connecticut, 1971. 230p. 72-32,136.

The study presents a critical examination of the cultural deprivation hypothesis of scholastic performance. The research is based upon a randomly drawn sample survey of one-third of the seniors enrolled in the high schools of Connecticut's five major metropolitan areas: Bridgeport, Hartford, New Haven, Stamford, and Waterbury. The surveys were conducted during the last weeks of the 1966 school year.

Based upon previous research, the idea of cultural deprivation is classified into four major dimensions: (1) social environmental or stimulus deprivation; (2) social relational or interactional; (3) supportive-encouragemental and; (4) family structure. Ten variables index these key dimensions of family life: (1) environmental richness; (2) early intellectual stimulation; (3) parental praise; (4) independence training; (5) parental permissiveness; (6) parental success expectations; (7) concern over schoolwork; (8) homework support norms; (9) family intactness and; (10) prestige level of father's occupation. The cultural deprivation hypothesis is tested by examining the general proposition that variations in scholastic performance are determined by exposure to variations in these important features of family life.

Based upon zero-order correlation analysis and stepwise multiple correlation analysis, the data are examined separately by race. Separate data analyses are also conducted for black and white students enrolled within different school types. In the aggregate analysis of white students, the combined influence of the family variables accounted for 13.9% of the variance in scholastic performance. In the separate analyses by school type, the combined influence of the family variables explained 10.9% of the variance for white students enrolled in the inner-city low achieving high schools, 14.2% for white students enrolled in the inner-city middle achieving high schools, and 14.8% for white students enrolled in the cosmopolitan high achieving high schools.

In the aggregate analysis of black students, the combined influence of the family variables accounted for 12.9% of the variance in scholastic performance. In the separate analyses by school type, the combined influence of the family variables explained 17.0% of the variance for black students enrolled in the inner-city low achieving high schools, 15.9% for black students enrolled in the inner-city middle achieving high schools, and 66.8% for the black students enrolled in the cosmopolitan high achieving high schools.

The cultural deprivation idea received strong support only for black students enrolled in the cosmopolitan high achieving high schools. Several tentative explanations are developed in order to account for this finding. It is concluded that the idea of cultural deprivation is a weak and limited explanation of variations in scholastic performance both among white and minority group students. The theoretical, ideological, and public policy implications of this conclusion are discussed. In addition, the implications of the Connecticut findings are discussed in relation to the findings presented in Equality of Educational Opportunity. A methodological and theoretical critique of Equality of Educational Opportunity is presented.

46. Campbell, Wallace. Parents' Perception Of Their Powerlessness In Lower Class White, Middle Class White and Lower Class Mexican American Homes, and the Resulting Influence On Student Achievement. The University of Toledo, 1972. 77p. 72-20,178.

The purpose of this study was to discover feelings of mastery or powerlessness of particular groups of parents in relation to society at large and the local school system. The primary focus of this study was to determine to what degree a measure of these two aspects of parents' feelings could be utilized in predicting student achievement.

Three randomly chosen samples of 25 each from lower class white, middle class white, and lower class Mexican American parents in a small Southern Michigan community, with students in grades six through nine, were administered a questionnaire and two powerlessness scales; one designed to measure parents' perceptions of their powerlessness in relation to mass societal issues such as war, peace, and inflation, and the other with powerlessness in relation to local school issues such as discipline, curriculum, and the hiring and firing of school personnel.

Two measures of student achievement, GPA and the Metropolitan Achievement Test, were used to assess student achievement in each family.

The Pearson Product Moment Correlation Technique and analysis of variance were used to test the following hypotheses:

(1) In relation to mass society and the local school system, there will exist significant differences between the means of the three groups on measures of powerlessness.

(2) There will exist significant negative relationships between student achievement and parental powerlessness within the three groups.

(3) Student achievement in the lower class white and the

Mexican American families will not be significantly different. However, there will exist significant differences between these two groups and the middle class white group.

The differences between the means of the three groups on powerlessness in relation to the local school system were not significant; however, there were significant differences between the three groups on powerlessness in relation to mass society (this difference was between the lower class and the middle class whites, but not between the lower class Mexican Americans and the two other samples). The only significant correlations between parental powerlessness and student achievement were found in the lower class white sample. Significant differences in student achievement were found in the hypothesized direction.

Lower class parents perceive themselves as being more powerless than do middle class parents to control societal issues at large, but these parental feelings do not necessarily effect their children's school achievement.

Once Mexican Americans have "settled out", they adjust to their surroundings as well as others of comparable means and likewise perceive themselves to have a similar degree of control over societal or school issues affecting themselves and their children.

The greater extent to which lower class white parents feel powerless to control the schools effect on their children is the greater the impact upon student achievement.

Even though measures of parental powerlessness do not necessarily serve as adequate predictors of student achievement, other related factors such as father's occupation and father's and mother's education do.

47. Innes, Thomas Charles. The Prediction Of Achievement Means Of Schools From Non-School Factors Through Criterion Scaling. The University of Tennessee, 1972. 84p. Major Professor: William H. Cormier. 72-27,475.

The purpose of this study was to determine the feasibility of predicting school means for eighth grade students in Tennessee from a non-school-oriented questionnaire in which criterion scaling was used. The dependent or predicted variable was the total score of the Metropolitan Achievement Test converted to a scale with a mean of 50 and a standard deviation of 10. The independent or predictor variables were eight subtest scores from a 42 item non-school-oriented questionnaire adapted from the report called Equal Educational Opportunity by James Coleman and others.

Both instruments were administered to 1,449 students in 15 schools located in neighborhoods widely varied as to economic, racial, and geographic characteristics. All items on the questionnaire, whether nominal, ordinal, or quasi-interval in nature, were subjected to criterion scaling. This consisted of giving a numberical value to each item response called a criterion-scale value. It reflected the achievement level of the students who marked each response. The scale value was produced by assigning to each response position the average achievement score of all students who chose the response position. Then, each criterion-scale value in an item was cumulatively multiplied by the proportion of students in any given school who marked each response position. This procedure gave each school a unique criterion score for each item.

The item scores were combined into the following category scores. Expectation for Excellence, Socio-economic Status, Attitude Toward Life, Family Structure and Stability, Educational Desires and Plans, Race, Reading at Home, and Sex. Intercorrelations were determined among the eight category scores and the actual achievement means of the fifteen schools. These intercorrelations were subjected to a step-wise regression analysis. This analysis of the fifteen-school study yielded a multiple correlation of .949 between the non-school questionnaire categories and the actual achievement scores of schools. The category scores of the fifteen schools were then placed into the prediction formula along with beta weights and a constant which had been produced from the step-wise regression analysis. The correlation between the predicted and actual scores was .94841.

Because high multiple correlations are common when low numbers of subjects are used, the method used in this study was given a further test by artifically increasing the number of cases. The students from the fifteen schools were arbitrarily divided into forty-six classroom-sized groups and a new regression equation was produced which yielded a multiple correlation of .98378. Category scores were introduced into the new prediction formula and the correlation among the resultant predictor scores and the actual achievement scores of the forty-six groups was .9726.

A quasi cross-validation group was produced from the same 1,449 students by assigning them in entirely different combinations to 46 new groups, the means of which were much less diverse than the original 46 groups. Their category scores were introduced into the regression formula derived from the original 46 groups, and the correlation between predicted and actual scores was .9048.

It was concluded that procedures used in the study were satifactory for the development of accurate predicted scores based on selected aspects of the non-school environment. Discussion involved possible flaws in the methods used for criterion scaling, the absence of school factors in the prediction formula and the resistance of achievement test scores to unanticipated gains.

Implications of the study included the following: (1) It may be possible to identify relevant school variables by contrasting a variety of them from schools whose actual scores in this study were quite different from the predicted scores. (2) Educators, recognizing the resistance of achievement scores to change, may be able to justify the allocation of time and energy more evenly over a broader set of learning objectives within the school program. (3) The results of the study may lead some educators to broaden their program to include the community as well as the school.

48. Milam, Donald Ray. *Analysis Of the Academic Achievement Of Selected Indian Tribes and Variables Associated With High Achievement*. Arizona State University, 1972. 98p. Chairman: Dr. Philip D. Gaffney. 72-32,828.

This study was designed to investigate the educational status of Apache, Hopi, and Pima pupils attending Bureau of Indian Affairs (BIA) schools under the direction of the Phoenix Area BIA Office and was divided into two phases. Specific purposes for Phase I were to: (a) compare Phoenix Area BIA California Achievement Test (CAT) total battery raw scores with the national norms of the CAT, by grade level; (b) develop local norms on CAT total battery scores for the Phoenix Area; (c) compare individual tribal CAT total battery scores with the national norms of the CAT, by grade level; (d) develop local norms on the CAT total battery score for each tribe, by grade level; and the (e) investigate the sex factor in relation to achievement, by grade level and by tribe. The major purpose of Phase II was to find variables associated with high achievers (those who scored above one standard deviation of the CAT national mean) that were not associated with low achievers (those who scored below one standard deviation of the CAT national mean).

Comparison of each sample's CAT total battery raw scores with the CAT standardization sample revealed the following results: (a) the Phoenix Area was significantly below the standardization sample (p .001) at all grade levels except at grades 3 and 4 ($p > .05$); (b) the Pima pupils were significantly below the standardization sample at all grade levels studied ($p < .001$); (c) the Apache pupils were significantly below the standardization sample at all grade levels studied ($p < .001$); (d) the Hopi pupils were significantly below the standardization sample at all grade levels (p .05 or greater), except at grades 3 and 4 (p .05); and (e) the Hopi pupils' scores in grades 3 and 4 did not differ from the standardization sample. Analyses of differences in achievement between males and females for each tribe revealed only one significant result: Apache females scored higher than males at the eighth grade level. It was noted that females tended to score slightly higher than males.

Three significant differences ($p < .05$) were obtained when analyzing differences in factors associated with high versus low achievers. They were: (a) a greater proportion of males were classified as low achievers than high achievers; (b) a greater proportion of females were classified as high achievers than low achievers; and (c) a greater proportion of low achievers repeat more grades than do high achievers. Further, 16 of the 22 variables studied tended to be associated with high achievers, although not at a statistically significant level.

It was suggested that an individualized method of instruction enhanced the academic achievement of third grade Hopi pupils. It was argued the existence of a peak-over point in the Hopi tribe may be due, in part, to the type of program offered. Other conclusions were: (a) no practical difference existed in the achievement test performance between males and females: (b) variables associated with high academic achievement in the general population also tended to be associated with high academic achievement in the Indian population; and (c) modification of the existing educational programs to include accelerated courses. It was tentatively concluded that acculturation is not a valid explanation for the discrepancy between achievement test scores of white and Indian pupils.

Further areas for research suggested were: (a) test the efficacy of extending the use of programmed materials beyond the third grade; (b) test the efficacy of fading out the use of programmed materials; and (c) initiate a study to define, more specifically, variables associated with high academic achievement.

It was recommended the BIA establish a computerized Data Bank to aid in dissemination of pupils' records when school transfers are made and to aid in the evaluation of special programs.

49. Moore, William Lee. Relationships Between Parents Of Family Living and School Achievement Of Black Children Living In An Economically Depressed Urban Community. Purdue University, 1972. 105p. Major Professor: Dr. William W. Crowder. 72-30,941.

The problem investigated in this study was whether the family structure of black children living in an economically depressed community would affect their cognitive achievement. The data also afforded the examination of the relationships between intelligence test scores and achievement levels for the incidental sample that was investigated.

The incidental sample consisted of the total number of pupils in the third, fifth and sixth grades of one elementary school in an economically depressed urban community (N=242). The sample was selective rather than random. The study was descriptive and exploratory. The variables of family structure, economic levels and I.Q. scores were investigated. These variables were elaborated on the test factors of sex and grade levels.

Non-parametric tests of the hypotheses disclosed that there was no support for the hypothesis that family structure had any relationship to cognitive achievement. The analysis also indicated that economic levels were largely unrelated to achievement. However, significance was reached on arithmetic concepts at the .001 level. The author did not advance any explanation beyond chance variances of borderline scores for this phenomenon. The anticipated relationship between achievement and I.Q. scores was supported. The investigator asserts that his study dispelled any relationship between family structure and economic levels with cognitive achievement.

Within the limitations posed and applicability for generalization, the results of this research tend to support the contention that family structure within a black, economically distressed community setting has limited bearing on school achievement.

Further research into family structure as related to sex of child was called for by the author and a cessation of the attempts to link black family structure with school failure.

50. Vroegh, Karen Sue. The Relationship Of Sex Of Teacher and Father Presence-Absence To Academic Achievement. Northwestern University, 1972. 127p. Director B. Claude Mathis. 73-10,310.

Boys are reported to have four times as many academic problems as girls in the elementary grades. Feminization of the classroom has been suggested as the reason for their disproportionate number of problems and more male teachers have been proposed to reduce the number of problems. Male teachers are expected to help define the male sex role by offering alternative stimulation and academic interests benefiting the learning process of girls as well as boys. Most studies comparing the effects of male and female teachers on academic achievement have found no differences, however.

The proposal of more male teachers in the classroom is based also upon the supposed lack of adequate male models in the home. Father absence due to divorce is frequent and father presence is reduced due to work and commuting patterns.

This research studied evidence concerning the interrelationships of sex of teacher,extent of father presence-absence, and sex of child to academic achievement. The hypotheses tested were: I. The more father absence, the higher the mathematics change scores of boys and girls with male teachers; II. The more father absence, the higher the reading change scores of boys with male teachers; III. The more father absence, the higher the language change scores of boys with male teachers; IV. The more male presence experienced by boys and girls, the higher the mathematics scores; and V. The more male presence, the less high reading scores are dependent upon sex of child.

A Father Activity Inventory to determine the extent of father presence-absence was sent to the parents of 215 boys and 201 girls who had one of 14 male and 14 female teachers for one year in the fourth or fifth grade. Pre- and post-standardized achievement test scores in reading mathematics, and language were recorded from school records.

To test the hypotheses residual change scores in reading, mathematics, and language were separately subjected to regression analyses with the predictors being measures of extent of father presence-absence, sex of teacher, and sex of child. Also posttest scores of achievement and change scores of subjects with pretest scores under 60 were subjected to a series of analyses of variance, the independent variables being sex of child, sex of teacher, and dichotomized measures of father presence-absence.

No support was found for any of the hypotheses. On the basis of the data in this study, it was concluded that among fourth- and fifth graders, male teachers do not have a positive effect on academic achievement as a function of extent of father presence-absence.

Three limitations were placed on this conclusion. 1) Father presence-absence is represented as a continuum of quantity rather than as total absence or presence as in other studies that have found a negative relationship between his absence and academic achievement. 2) Children from higher SES strata as in this sample may not experience much father absence due to the number of father substitutes available in the community. 3) Intervention of a male teacher one year may not be long enough to produce the desired effects.

Theories of sex-role-identity development have suggested that intervention of male teachers at an earlier age may have the desired effects. Also it appears that the nature of father presence-absence needs clearer specifications. One finding suggested that quality rather than quantity of presence is important. In addition, concomitant variables of father absence rather than absence per se may be the crucial variables.

Family and Community Influences
Other Studies

51. Stipe, Claude Edwin. *Eastern Dakota Acculturation: The Role Of Agents Of Culture Change*. University of Minnesota, 1968. 299p. 69-1537.

The purpose of this study is to analyze the role of missionaries, fur traders and government officials in Eastern Dakota culture change. The primary emphasis is on the personal relationships between the Indians and Whites, rather than on structural changes in Eastern Dakota culture. The data are used to test the proposition that the personality, i.e., the attitudes and values, of the donor culture were crucial in the favorable or unfavorable reception of cultural elements.

The research is based completely on published materials and unpublished manuscripts. The latter include personal correspondence, diaries and reminiscences of the missionaries, fur traders and government officials.

After summarizing the relationships between the Eastern Dakota and each group of acculturative agents, an analysis is made of the involvement of the latter in the areas of territory and treaties, the trading system, education, subsistence, material culture, social organization, political organization and warfare.

These data do not support the proposition that the personality of the members of the donor culture was a crucial factor in Eastern Dakota acculturation. The goals of the missionaries were to educate the Dakota so they could read the Bible, divorce them from their aboriginal religion, change their marriage system to monogamy, change the subsistence pattern from hunting to farming, establish independent families which owned property in severalty, and clothe and house them according to White patterns. The missionaries were successful only at Lac qui Parle, for two basic reasons unrelated to their personality: they were supported by a half-breed fur trader who was very influential with the Indians, and the Indians in that area were not eligible for government annuities until after they had realized the advantages of farming.

The fur traders were primarily concerned with controlling the hunting process and trade in such a way that they made a profit and maintained economic control over the Dakota, and with influencing treaty negotiations in order to receive the cash given in payment for ceded land. The credit system and threats to withold credit from uncooperative Indians accomplished the first end, and by controlling the half-breed interpreters the traders were able to influence the treaty negotiations to their advantage.

The government officials had basically the same goals as the missionaries except for those which were purely religious. Some were also especially active in attempting to negotiate treaties which would cede Indian lands to White settlers. Rather than using persuasion they threatened to withhold annuities or use military force. The consistent application of sanctions caused many of the Eastern Dakota to feel that there was no choice but to comply with the wishes of the officials.

The data do not support the proposition that the personality, i.e., the attitudes and values, of the members of the donor culture was a crucial factor in Eastern Dakota culture change. Three other factors were of overriding importance: the use or threat of force, the economic advantages which accrued to the Indians, and the use of the half-breeds to manipulate them.

52. Sabey, Ralph Harris. Staroveri and School: A Case Study Of the Education Of Russian Immigrant Children In A Rural Oregon Community. University of Oregon, 1969. 185p. Adviser: Harry F. Wolcott. 70-2538.

The purpose of this inquiry was to examine cross-cultural education in a rural American community. The community selected, Gervais, Oregon, was one in which the children, from twenty-seven recent immigrant families attend school. These families were of the Staroveri religion and were Russian-speaking peasants, who migrated from northern China to Brazil in 1960 and to Oregon during the period from 1964 to the present.

The data is presented in two major parts: an ethnographic type account of the Staroveri and an ethnographic type account of the Gervais Elementary School. Data were collected by methods associated with field study procedures: both formal and informal observations, interviews, questionnaires, autobiographical statements, sociograms, pupil writings and perusal of documents. Data collection was guided by a category scheme.

A summary of the findings indicate that the problems associated with cross-cultural education in this community may be focused into six major areas: (1) The Staroveri's lack of information about the Gervais Elementary School. (2) The Gervais Elementary School's lack of information about the Staroveri. (3) The differences between the ideal goals (conceived values) of the Gervais Elementary School and the educational practices (operative values) which occur in the Gervais Elementary School. (4) The differences between: the operative and conceived values of the Staroveri, and the operative values of the Gervais Elementary School. (5) The differences between: the operative and conceived values of the Staroveri, and the conceived values of the Gervais Elementary School. (6) The differences between the object values of the Staroveri and the object values of the Gervais Elementary School.

This study concludes with a statement of some propositions about cross-cultural education in Gervais which may be investigated under more controlled experimental conditions.

53. Amerson, George Thomas. An Examination Of the Social, Educational, and Economic Adaptation Of An Isolate Population. University of Oregon, 1970. 169p. Adviser: Dr. Arthur Pearl. 71-10,682.

The primary purpose of this study was to determine the degree to which Upward Bound adolescents differ in their social, economic, and educational adaptation, as compared with a similar group of non-Upward Bound adolescents; and to make recommendations to improve the Upward Bound program at the University of Idaho, Moscow. A secondary purpose was to evaluate the test-retest reliability and concurrent validity of the Community Adaptation Schedule.

Hypotheses one and two stated that there will be no correlation significantly different from .00 in terms of the test-retest reliability and the concurrent validity of the Community Adaptation Schedule which was administered to all Indian students of the two participating school districts, as measured by the Pearson Product Moment Correlation. Hypotheses three, four, and five stated there will be no statistically significant difference between scores of a group of Upward Bound students and a group of non-Upward Bound students on tests of social adaptation, on tests of educational adaptation, or in terms of work experience, as measured by the Community Adaptation Schedule. Hypothesis six states there will be no statistically significant difference between the scores of a group of Upward Bound students and a group of non-Upward Bound students in terms of teacher perception of students' educational adjustment, as measured by Teacher Rating Scales.

Statistical analysis in this study included the use of the Pearson Product Moment Correlation to evaluate the test-retest reliability and the concurrent validity of the Community Adaptation Schedule in testing the total Indian high school population (N=43) in the school districts of Lapwai and Kamiah, Idaho. Thirteen Upward Bound Indian students were matched with a group of thirteen non-Upward Bound students on the control variables of sex, age, GPA, and level of intelligence. The two groups were included in the total Indian population of the two school districts. The T-Tests of Difference for matched groups were also used in a comparison of the two groups on the variables of social, economic, and educational adaptation, and teacher rating of their educational adjustment.

The test-retest reliability of the CAS was found to be 0.6590. The reliability that was based on the common question total equalled +0.7068. Concurrent validity between the CAS (in terms of social adaptation) and the Briston Social Adjustment Guides was -0.1084, while the concurrent validity for the CAS and GPA was 0.2847. Neither of these concurrent validity figures was significantly different from .00. A further check of validity in comparing the CAS scores with scores on the Differential Aptitude Test and the Iowa Tests of Educational Development resulted in 0.3116 and 0.2445 for the two tests, respectively. Correlation CAS scores and teacher ratings of the students' educational adjustment was 0.1135.

T-Tests for comparison of the Upward Bound and non-Upward Bound groups did show a significant difference (2.239) between the two groups in terms of social adaptation on the CAS. Educational adaptation and work experience, however, did not differ significanlty (1.005 and 0.554 respectively) between the two groups, as measured by the CAS. A comparison of Upward Bound and non-Upward Bound groups in terms of teacher rating of educational adjustment showed no significant difference between the two groups.

Further information was gathered and compiled concerning the views and opinions of American Indian high school students and their teachers through the use of interviews and a Teacher Questionnaire.

54. Dyer, Charles James. A Model For Supplementary Early Grade Assisance By Nonprofessionals For the Culturally Disadvantaged Child. University of North Carolina at Chapel Hill, 1970. 102p. Supervisor: David H. Reilly. 71-3551.

In a psychological services program operating in an isolated southern rural community 25 percent of the children in grades 1 through 4 were found to have IQ scores of 85 or less. The measuring instruments were the Primary Mental Abilities Test by Thurstone and the Ravens Progressive Matrices. In addition to the psychological program which served 900 children in four schools, grades 1 through 4, a special program was developed for the 214 with learning problems to supplement the academic offerings of the regular school system. The nature of the milieu and the home environment, including parents who work long hours in the fabric mills and personal employees, strongly suggested a cultural level that disadvantaged the children who were required to cope adequately with the school culture. In an effort to extend the limited professional services in the psychological program, a model of supplementary assistance including nonprofessional instruction personnel and special materials was incorporated in the regular school system. This study reports the investigation of the effectiveness and the feasibility of implementation of this program.

Six local citizens from a variety of occupations, without teaching certificates, were selected on the basis of a personal interview and performance scores on the Army General Classification Test-Civilian Edition, as well as the California Test of Personality. These persons, called SIPs (Special Instruction Personnel), received an orientation to the use of special materials and continuing supervisions during the four months they worked with the selected children. The disadvantaged learners attended special classes, apart from their regular classrooms, for 2 one-half hour periods each school day in groups of 8 or less. Care was exercised so that these classes did not conflict with recreation periods, lunch periods, or any part of the regular class schedule that included general assemblies.

To evaluate the effectiveness of the program, 3 specific groups were identified: the children with PMA IQ=85 or less who received both psychological services and the special classes (n=214), the children with PMA IQ $>$ 85 who received psychological services only (n=852), and the children outside the project schools with IQ=85 or less who received neither psychological services nor special classes. All children were tested in September at the start of the school year and in May at the end of the year. The average gain in PMA IQ points for those with regular classroom experience only was 1.00; for those with psychological services only, an average gain of 2.39 IQ points; and for those who received psychological services plus the special classes, an average gain of 4.97 IQ points.

It was concluded that it was feasible to extend professional services through supervised nonprofessionals and that the supplementary assistance model made a highly valuable contribution to the development of learning skills in culturally disadvantaged early grade children.

55. Satterlee, James Lee. Characteristics Of Low Income Families In Eastern South Dakota: An Examination Of the Culture Of Poverty Concept. South Dakota State University, 1970. 257p. Supervisor: Professor Marvin P. Riley. 70-26,685.

Characteristics of a sample of 120 low-income families receiving USDA food commodities in three Eastern South Dakota counties are studied. The Objectives of the study are: (1) to provide a socio-demographic overview of the characteristics possessed by these families; (2) to test the applicability of the Culture of Poverty approach for classifying rural low-income families; (3) to construct a typology designed to better understand the heterogeneity exhibited among low-income rural families; and (4) to present the implications of the study for policy making, program planning and research.

Findings on the first objective show the average age of household head to be forty-six years, an average education of nine years, employed full-time primarily as farm managers and laborers, and a family size of six persons. Residential and occupational mobility findings reflect few moves. Average income for the families is $2,300 per year. Findings relating to health indicate over one-third of the households to be experiencing a serious illness with an average annual medical cost for the families to be $385. Level of living characteristics of the families indicate poor housing and facilities to be common. Lack of contact with mass media and low participation outside the home reflect isolation. The above findings are also presented for the farm and non-farm segments.

The findings on the second objective of the study is that the 14 characteristics assigned the poor by the proponents of the Culture of Poverty concept are not distributed homogeneously throughout the sample. Only 29 families possess over half of the characteristics with no families possessing all.

Three poverty types are delineated on the basis of the extent to which they possess Culture of Poverty characteristics. Chi-square tests for association between the poverty types and selected characteristics indicate a significant association for education, occupation, extent of unemployment, occupational and residential mobility, socioeconomic and health status, isolation, organization participation, family stability, and attitudes toward education. Characteristics not significantly associated are income differences, birthplace, age and sex of household head, and size of family.

The fourth objective is accomplished by presenting the implications for policy making, program planning, and research based on the findings of the first three objectives. The need for considering differences among various types of low-income families in program planning as well as a further refinement of the measures used in the study are stressed.

56. Gill, Joseph C. A Handbook For Teachers Of Sioux Indian Students. University of South Dakota, 1971. 181p. Director: Professor Fred J. Petersen. 71-27,806.

The purpose of this study was to prepare a Handbook for teachers of Sioux Indian students which would give the minimum information teachers need to understand and respect their students.

The following procedure was followed: a preliminary version of the Handbook was prepared and distributed to interested parties; an evaluation was solicited from those who received this version; suggestions obtained from the evaluations were then incorporated into the first draft of the present work; the first draft was also distributed for evaluation; finally, the modifications suggested by the second evaluation were incorporated into the present revision which was made during the summer of 1970.

Topics treated in the Handbook are as follows:

1. The problems faced by the non-Indian teacher of Sioux students are introduced; it is shown that some understanding [illegible] Sioux is essential.
2. A brief but comprehensive treatment of Sioux history is presented; the historical role of the school is examined.
3. Cultural perspectives relevant to the teacher are presented; the constitution of the pre-reservation culture is outlined, and current cultural problems are studied.
4. The role of the school is studied; the school is seen to be capable of use either as a tool of Anglo assimilationism or of Indian survival. Control of Indian schools by the local Indian community is advocated.
5. The Sioux student and his environment are analyzed. Factors which tend to create a negative self-image in the student are listed and remedies are suggested.
6. The complex role of the teacher of Indian students is divided into the following sub-roles: subject matter specialist, disciplinarian, "culture bridge," model, and counselor. The importance of respect for the student is stressed.
7. Selective curriculum problems are discussed. Courses in Sioux history, culture, language, and art are proposed; strong emphasis on English language and mathematics skills is urged.

The following recommendations were made:

1. Control of Indian education should be placed in the hands of Indian people.
2. Indian teachers and administrators should be prepared and should be hired when they have been prepared.
3. Teacher preparation programs should be substantially modified to provide real insight into the problems of minority group children.
4. Preservice and inservice programs for the new teacher of Indian students should provide support for the teacher as he encounters culture shock.
5. The staffs of schools for Indian students should be encouraged to become an integral part of the community.
6. Curriculum should be adapted to the cultural needs of the students.
7. The results of the National Study of American Indian Education should be used to help direct constructive change.
8. Tests standardized on an Anglo population should be

interpreted with caution.

9. Educational techniques appropriate for Sioux students should be developed.

10. The effects of television exposure on young Sioux should be studied.

11. Discipline practices in Indian schools should be critically studied.

12. The development of a constructive role for young Indian males is a project of critical priority.

13. Religious educators should re-evaluate their traditional programs.

57. Flores, Juan Modesto. A Study Of Mexican American Cultural Characteristics As Perceived By Members Of 100 Impoverished Mexican American Families and Its Educational Implications. University of Houston, 1972. 202p. Chairman: June Hyer. 72-27,519.

The specific purpose of this study was to investigate two general basic questions: (1) Does the low socioeconomic Mexican American perceive himself as disclosed in the literature? (2) Are there relationships between educational achievement, perceived Cultural Characteristics and the seven specific themes: 1) Ethnic Isolations, 2) Spanish Language, 3) Fatalism, 4) Present Day Orientation, 5) Limited Aspirations, 6) Machismo, and 7) Family Solidarity?

Two questionnaires were developed by this investigator for use with ninth grade students and parents in the Corpus Christi Independent School District. The validity evaluation of the instruments was made by a five member panel of experts who have done extensive work in the field of Mexican American education. The questionnaires were checked for reliability using the test-retest method in the Houston Independent School District, Houston, Texas. One hundred randomly selected ninth grade students from Corpus Christi, Texas, were administered the instrument by this writer. Seventy-six parents of the selected students were interviewed by a two-member bilingual team from the same neighborhood.

Chi square and analysis of variance were computed to test relationships and differences.

The results indicated that Mexican American cultural characteristics as perceived by the members of 100 low socioeconomic Mexican American families were not in total accordance with the literature. There was general agreement on the themes of Ethnic Isolation, Spanish Language, Family Solidarity, and, to some extent, Present Day Orientation, while there seemed to be general disagreement in the areas of Fatalism, Limited Aspirations, and Machismo. The findings disclosed Mexican Americans in this sample as living in isolation, maintaining the Spanish language, and having strong family ties. They were also disclosed to a certain degree as being prone to function in terms of the present as opposed to the past or the future, as having high aspirations and not adhering to the Machismo concept.

CONCLUSIONS

Ethnic Isolation. The administration, instruction, and facilities in that neighborhood should be just as good as anywhere else in the school district.

Spanish Language. There should be more bilingual personnel who speak and understand Spanish. Communication from school to home should be in Spanish as well as English whenever possible. Schools should assess their communities for the possibility of using a Spanish or bilingual approach to increase parent participation. More and better bilingual programs need to be implemented with the regular school program.

Fatalism. Schools should have more work-study programs to keep the Mexican American student from dropping out to get a job. More parents should be hired in these schools as aides.

Present Day Orientation. More personalized and individualized programs with short range objectives should be planned in the instruction for the Mexican American students.

Limited Aspirations. More scholarships and work-study programs should be granted by civic organizations and federal grants to encourage the students to stay in school.

Machismo. Qualified teachers who are sensitive to the needs of the Mexican American students should be assigned to these children regardless of sex or ethnic background.

The school should be a focal point of the community to gain the support of the father as well as the mother.

Based upon findings of this study additional studies are recommended in:

1. the investigation of the effect of Headstart on the educational achievement of the Mexican American child.
2. the determination of the effect of bilingual education on the educational achievement of the Mexican American student.
3. the investigation of the effect of ability grouping on the educational achievement of the Mexican American child.

The answer to many of the problems of the Mexican American rests within the educational arena. The problems which exist for the Mexican American student many times go beyond the realm of the classroom. There must be awareness, a commitment, and an urgent positive action in the social, political, and economical arena so that the "impossible dream" may become a reality for more Mexican American children.

58. Hammonds, William Charles. The Beliefs Of Black and White Students and Parents Concerning Participation In the Governance Of the Junior High School. The University of Michigan, 1972. 342p. Chairman: Frederick W. Bertolaet. 73-11,137.

The primary purpose of this study was two-fold:

1. To examine the opinions, attitudes and beliefs held by black and white students and parents concerning the governance of the two junior high schools located in working class communities.

2. To compare the opinions, attitudes and beliefs of these students and their parents concerning their level of participation in the governance of the two junior high schools.

A personal interview was conducted with a small representative sample from the schools to measure and record the perceptions held by these students and parents during April, May and June, 1971. In addition, this investigation sought to determine the extent and quality of communication between the students and parents and the two schools as well as the effectiveness of the various systems through which students and parents participate and influence educational policy. Also, the investigation sought to determine to what extent black and white students and their parents perceived themselves participating in the governance system of the junior high school. Finally, suggestions and recommendations were offered to explain how educators and lay citizens could cooperatively create meaningful and effective systems to increase the participation level of students and parents in the governance of the junior high school.

The research methodology used for this study was descriptive. The source of data reported in this study consists of the perceptions held by students and parents concerning the level of participation of lay citizens and professional educators in the governance system as well as their impact on educational decision-making. Information relating to these relationships were gathered from a representative sample consisting of 24 students (12 from each school) and 24 parents (the mother of each of the students). The study was conducted in two junior high schools from the Detroit Public Schools, Detroit, Michigan.

A personal interview was administered to the sample. This instrument sought to measure and record the perceptions held by the respondents toward the duties and responsibilities of teachers and administrators, the climate of the school, the respective levels of involvement and participation of lay citizens and professionals in educational decision-making and the source and level of knowledge of students, parents and professional educators of the junior high school.

This study reveals a desire on the part of both black and white students and their parents to increase substantially the level of involvement and participation of students, parents and citizens in the governance of the junior high school.

One of the trends revealed by the study was an intense alienation and distrust among respondents which, in large measure, was directed toward the urban bureaucracy's attempts to improve the quality of educational services and to modify power relationships between the public school bureaucracy and its client-system.

Also, the respondents appeared reluectant to accept simplistic educational reform programs such as decentralization as a viable means to substantially improve the quality of educational experiences for black and white working-class youngsters.

59. Nevius, Jr., John Richard. The Relationship Of Child-Rearing Practices To the Acquisition of Moral Judgments In Ten-Year-Old Boys. University of Southern California, 1972. 191p. Chairman: Robert Brackenbury. 72-26,044.

Purpose: This research investigated the relationship between parental child-rearing practices and the rate at which ten-year-old boys acquire more mature moral judgments.

Procedure: The strategy of the descriptive research was of a causal comparative nature.

Forty ten-year-old boys and their mothers were studied. Twenty families were drawn from middle class socioeconomic levels of society, and twenty families from lower class socioeconomic levels of society.

Moral judgment levels of the sons were determined through the use of moral dilemma problems created by Lawrence Kohlberg which yielded data that was divided into three ascending stages of moral judgments. Measures and reports of parental control were determined for both sons and mothers. The types of parental child-rearing were separated as to one type of power-assertive technique and two types of nonpower-assertive techniques; the protocol used to determine child-rearing techniques were designed by Martin L. Hoffman.

The determination of relationships was based upon a 2 x 3 analysis of variance model.

Findings. (1) The date did support the hypothesis that children from the middle socioeconomic class would achieve higher levels of moral judgments, as measured on Kohlberg's scale, earlier than would children from the lower socioeconomic.

The remaining hypotheses were not supported.

(2) There were no significant differences in the relationships between the three types of child-rearing and stages of moral judgment.

(3) There was no significant relationship between induction-regarding parent as child-rearing technique and earlier acquistion of higher levels of moral judgment.

Conclusion. From the data in this study it may be inferred that for ten-year-old boys there is no difference between power-assertive and nonpower-assertive techniques of child-rearing insofar as a relationship with levels of moral judgment may be ascertained.

Three possible explanations were considered:

(1) The demand characteristics of the situation may have caused the parents to consider the child-rearing protocol as a problem solving situation.

(2) The sons may have been too young or immature to separate the subtle distinction between love withdrawal and inducation-regarding parent as non-power-assertive techniques of child-rearing.

(3) The process of internalization, which begins primarily through the child's identification with the parent, may not occur until the child reaches Stage II on Kohlberg's scale of moral judgment. Such a situation may inhibit the role-taking potential inherent in inductive child-rearing patterns.

Recommendations. This research has shown the need for a longitudinal study which would more fully control for the demand characteristics of the parental interview, and that would also determine if stage-related shifts in parental behavior occur. A study which would cover extended age ranges would add additional data to the effect of role-taking as it is related to inductive child-rearing techniques.

60. Vonk, Jr., John A. Parental Surveillance Of Students In Relation To Social Status and Race. Western Michigan University, 1972. 145p. 72-31,639.

This research report presents findings pertaining to selected social and social-psychological characteristics associated with parental surveillance of their children's academic school performance. Surveillance refers to how well informed parents are about what and how well their children are doing in school. The major social-psychological characteristics investigated are: (1) the parents' academic expectations for their children; and (2) the importance they attach to high grades. The major social system variables investigated are socioeconomic status level and racial identity.

The author's concern with how well parents are informed of their child's school-related behavior rests on prior research which indicates that while parents may control many of the contigencies associated with a student's academic performance, they cannot appropriately manipulate these contingencies unless they are at least partially informed about the activities of their children in school.

The basic data for this study were obtained from several different communities. One large urban city characterized by multiplicity of racial and ethnic groups and socio-economic strata. The remaining communities were: (1) a black urban community, (2) a black residential community, (3) a white urban community and (4) a white residential community. From these communities parents of sixth, seventh, and eighth grade level students were selected for parental interviews. The sampling distribution approximated the population distribution of parents on socio-economic status levels and racial composition in each community.

In assessing the social-psychological characteristics of parents who have some degree of surveillance of their children, it was hypothesized that parents who have high surveillance would also have high educational expectations for their children. The data supported this hypothesis in that parents with high surveillance were more likely to expect their children to graduate from college, and parents with low surveillance were more likely to expect their children to quit school after graduating from high school. One third of the parents, those who knew almost nothing about what or how well their children were doing in school, did not expect them to graduate from high school.

Since there are those who would contend that black parents are less likely to know what their children are doing in school, the degree of parental level of academic surveillance was examined to see if there was any difference according to race. The results indicate that parental surveillance of students was not associated at all with the racial characteristics of the family. Black parents were just as likely to be well informed about their children's school work as were the white parents.

The degree of academic surveillance associated with different occupational groups was also ascertained. The results indicate that the lower occupational groups were only slightly less well informed about their child's school work than were the higher occupational groups. The slight difference in parental surveillance associated with the parents' occupation do not warrant concluding that parents in the lower occupations are any more likely to be less well informed about their child's academic behaviors than are parents in the higher occupational strata.

In summary, parents with high surveillance are more likely than parents with low surveillance to have higher educational expectations, attach more importance to grades, and to feel that the school is doing an adequate job of preparing their children for further education. In addition, very slight surveillance differences were found among parents of varying racial characteristics and occupational status position.

61. Johnson, Robert Severt. Comparative Study Of Educational Attainment Of Warm Springs Indians and Non-Indians In the Madras Union High School For the Years 1956-1965 Inclusive. Washington State University, 1967. 118p. Chairman: William H. Crawford. 67-15,749.

The purpose of this study was to determine the goal in educational attainment of Indians as compared with non-Indians in the Madras Union High School, Madras, Oregon, for the period 1956-1965. More specifically the study:

1. Measured the educational attainment of the Indians and non-Indians.
2. Compared the educational attainment of the Indians with the non-Indians.
3. Analyzed the trends in educational attainment of Indians compared with non-Indians.

Answers were sought to the following questions:

1. What was the educational attainment of the Indians and non-Indians as measured by age, educational persistence, intelligence quotient, and grade point average?
2. How did the educational attainment of the Indians compare with the non-Indians for the factors of age, educational persistence, intelligence quotient, and grade point average?
3. Was a trend evidenced in the educational attainment of the Indians compared with non-Indians for the period 1956-1965?

It was expected that:

1. A greater number of Indians completed high school in 1965 than completed in 1956.
2. A greater percentage of Indians completed high school in 1965 than completed in 1956.
3. The mean "educational persistence" for the Indians who entered high school in 1961 was higher than for those who entered in 1952.
4. The mean intelligence quotient for the Indians who entered high school in 1961 was higher than the mean intelligence quotient for the Indians who entered in 1952.

The general question of educational gain of the Warm Springs Indians was approached through the four factors of age, educational persistence, intelligence, and grade point average. Each of the four factors were analyzed by one to four sets of data. Analysis of each set of data was made and trends were suggested in terms of "gain," or "regression."

Gain was shown by Indians compared with non-Indians for the factor of age retardation or overage in grade.

Gain was shown by Indians compared with non-Indians for the factor of educational persistence.

No gain was shown by Indians compared with non-Indians for the factor of dropout rate.

No gain was shown by Indians compared with non-Indians for the factor of intelligence quotient score.

Regression was shown by Indians compared with non-Indians when the factor of graduation rate was considered.

Regression was shown by the Indians compared with non-Indians when the factor of grade point average was considered.

It was concluded that educational attainment as measured by the four general factors, age, educational persistence, intelligence quotient, and grade point average, was different for the two populations studied--Indian and non-Indian.

With the exception of a few specific instances, the analysis of educational attainment factors for the period 1956-1965 indicated that the Indians showed no gain compared with the non-Indians.

Expectations 1 and 3 were supported by the study. Expectations 2 and 4 were rejected by the study.

School Achievement

62. Whitmore, Dorothy Gates. A Study Of Attitudes and Achievement Of Disadvantaged Adolescents In Alaska. University of Colorado, 1969. 101p. Director: Professor Clifford G. Houston. 70-5906.

The Office of Economic Opportunity established the Upward Bound Program in June, 1966, as a pre-college preparatory program for disadvantaged youth. During the summer of 1967, fifty-four disadvantaged Alaskan students--seventeen Eskimos, twenty-eight Indians, and ten Caucasians--enrolled in the Upward Bound program at Alaska Methodist University. The experience was designed as an enrichment program, keeping in mind that the particular disadvantagement of the Alaskan was characterized not only by poverty as usually defined but also by isolation, a unique kind of poverty. The acculturation aspects of the situation, the effect of the experience on those persons emerging from one culture and entering another, offered an opportunity to observe and analyze reactions to the superimposition of one culture upon another.

This study was designed to determine whether or not an eight-week concentrated education experience of intensive residential schooling provided any measurable change in achievement or attitudes of a group of Alaskan students, the majority of whom came from an ethnic minority. The study was further designed to analyze the efficacy of the program, the purpose of which was to produce stable students with new insights and who were motivated to pursue further education.

The instruments of measurement employed in the study were the Lorge-Thorndike Differential Intelligence Quotient Tests, Verbal and Non-verbal Forms, Level 5; the Sequential Tests of Educational Progress, Form 3A; and a semantic differential. Measured were changes in achievement, in grade point averages, and in attitudes. Verbal and non-verbal intelligence quotients were compared.

The statistical methods were the sign test and the t test. All the hypotheses were stated in the null form and were rejected at the .05 level.

The results of the achievement testing showed a significant improvement in four of the five areas tested; reading, writing, mathematics and social studies. A significant loss was noted in the area of science.

On the verbal and non-verbal differential intelligence tests the null hypothesis was supported; there was no difference in the quotients.

Of the eighty-four factors evaluated on the semantic differential ten showed significant change, possibly some of these by chance. Change was noted in the judgments about ethnic minorities, including positive movement that would include the group tested. Factors involving self-concept showed change both in the positive and negative directions.

A comparison of grade point averages from the regular school setting before and after the summer session showed a significant improvement.

An evaluation of the program would indicate that some positive changes did occur within the intensive eight week summer session.

63. Hatch, Ronald LaVern. A Comparison Of Slow Learners Of Low and Middle Socioeconomic Status On Academic Achievement, Self Concepts, and Intelligence Test Scores. Syracuse University, 1970. 132p. 70-24,086.

This research was designed to determine the similarities and differences of slow learners of low socioeconomic status (SES) and slow learners of middle SES. The variables of self concept, academic achievement and intelligence test scores were compared to determine if differences existed.

Many researchers have investigated the differences between low SES children and middle SES children and have generally concluded that the academic and social adjustment of low SES children is more difficult than that of middle SES children. Previous research has not dealt specifically with slow learners of low SES and middle SES despite the fact that approximately 15 to 18 percent of school-age children can be considered slow learners.

The education of the slow learner has been one of the most challenging and frustrating problems a teacher faces. This research was therefore designed to explore the differences that may exist between slow learners of low SES and slow learners of middle SES.

Differences between these two groups on the 3 stated variables might provide guidelines for modification of school programs which would more adequately meet the needs of both kinds of slow learners.

Sixty-five subjects were selected from a population of approximately 600 sixth grade students in 21 classrooms of 12 public schools in a cith with a population of 100,000. The subjects were classified as of low SES or middle SES by the Index of Status Characteristics developed by Warner, Meeker, and Eells and outlined in their book entitled Social Class In America.

Students were evaluated by means of the Wechsler Intelligence Scale for Children, Reading Tests for New York State Elementary Schools, Arithmetic Tests for New York State Elementary Schools, and the School-Attitude-Inventory, which is an unpublished experimental attitude test developed by Johnson, Cawley, and Neeley, to obtain measures of intelligence, academic achievement and self concept.

Mean scores were compared on the following variables:

(a) Academic Achievement

1. Arithmetic Computation
2. Problem Solving
3. Arithmetic Concepts
4. Total Arithmetic
5. Word Recognition
6. Reading Comprehension
7. Total Reading

(b) Self Concept

1. Adult Relationships
2. Intrapersonal Situations
3. Peer Relationships

(c)
1. Information
2. Comprehension
3. Arithmetic
4. Similarities
5. Vocabulary
6. Picture Completion
7. Picture Arrangement
8. Block Design
9. Object Assembly
10. Coding
11. Verbal I.Q.
12. Performance I.Q.
13. Full Scale I.Q.

The significance of the difference between slow learners of low SES and slow learners of middle SES was tested by using the t statistic at the $p \leq .05$ level.

The results of this research were not in line with previous research comparing low SES children with middle SES children. On the outlined variables significant differences were not obtained.

The Similarities sub-test of the intelligence test yielded one significant difference at p .05 in favor of the middle SES slow learners. This difference, however, could have occurred by chance in that it was one significant difference out of a possible 13.

The conclusions drawn were that if differences between slow learners of low SES and middle SES children exist at an early age then these differences are not apparent by the time these children reach grade 6.

The most significant finding of this research is the apparent similarity that exists between these two groups of slow learners.

A replication study is necessary to confirm these findings and to rule out the possibility that the subjects used are unique. The possibility that homogeneity on the variable of intelligence accounts for the lack of differences between these two groups should be explored.

This research indicates that, on the variables of self concept, academic achievement, and intelligence test scores, there are no differences between slow learners of low SES and slow learners of middle SES.

64. Hendra, Richard I. An Assessment Of the Motivation and Achievement Of Michigan Reservation Indian High School Students and Michigan Caucasian High School Students. Michigan State University, 1970. 126p. 71-11,863.

The purpose of this research was to determine if significant differences existed in motivation, grade point averages, achievement test scores and intelligence test scores between Michigan Reservation Indian students and their non-reservation Caucasian peers.

Data were gathered from the five public school districts which provide the educational services for the Indian students residing on the four Michigan Indian reservations. Ninth grade students were sampled to include data from students who might be potential drop-outs, as the drop-out rate of the Michigan Reservation Indian students approaches 60 per cent.

Motivation of the students sampled was measured by the use of the M-Scales. Intelligence test scores and achievement test scores were obtained from school district records. Grade point averages were developed from student grade records in subjects for which there was homework required.

An analysis of variance, based on a proportional sub-class frequency design, was used to analyze the data. One and two tailed "t" tests were also used to determine which data required further analysis.

No statistically significant differences at the .05 level of significance were found to exist between measured motivation factors, intelligence test scores, and achievement test scores between Michigan Reservation Indian students and their non-reservation Caucasian peers. Statistically significant differences in grade point averages between the two groups were found to exist.

There were no statistically significant differences on measured motivation factors between Michigan Reservation Indian students and an established Caucasian sample, and no statistically significant differences existed on measured motivation factors between Michigan Reservation Indian students and an established Plains States Indian sample.

The conclusions of the study were:

1. There are no statistically significant differences between Michigan Reservation Indian students and their non-reservation Caucasian peers in measured motivation, measured intelligence and measured achievement.

2. There are statistically significant differences between Michigan Reservation Indian students and their non-reservation Caucasian peers in earned grade point averages.

3. The statistically significant difference in earned grade point averages between Michigan Reservation Indians and their non-reservation Caucasian peers is not attributable to a lack of motivation or ability.

Supportive evidence for conclusion three suggests that the differences in earned grade point averages might be attributed to:

1. A widespread lack of sensitivity toward the Indian students by school district personnel.
2. Poor attendance records of the Indian students, attributed partially to parental apathy, student health and socio-economic conditions of the family.
3. Limited curricula offered by the majority of the schools, and a serious lack of supporting services.
4. Due to the lack of home electrification and over-crowded home conditions suggesting poor study habits among the Indian students.

Recommendations of the study include:

1. That the five public school districts responsible for providing the educational programs for the Michigan Reservation Indians immediately plan and initiate programs to increase the sensitivity of their personnel towards the Indian.

2. That the Michigan Department of Education employ the personnel necessary to mobilize and assist the various Indian groups in designing academic and supportive programs which will enable the Reservation Indian to reap the rewards of the educational system.

3. That the Michigan Legislature enact appropriate legislation to fund programs to allow the citizens of the Reservations to become better Indians. These programs may include funds for study centers, teacher training directed towards the Indian culture and norms, supportive services for Indian students and the development of programs to increase the socio-economic status of the Reservation Indian community.

65. Jayagopal, Rajabather. Problem Solving Abilities and Psychomotor Skills Of Navajo Indians, Spanish Americans and Anglos In Junior High School. The University of New Mexico, 1970. 181p. 72-9307.

The purpose of this study was to investigate the problem solving abilities of Navajo Indians, Spanish Americans and Anglos in two schools of Albuquerque, using WISC performance subtests as criterion measures and including five psychomotor skills, perception, visual set, emotional set, physical set and fine motor acts as predictor variables at intra- and inter-ethnic levels.

The study was divided into the following parts: (1) review of the pertinent literature, (2) design of the study outlining selection of subjects, selection and application of test instruments and compilation and treatment of data, (3) presentation, analysis and interpretation of the data and (4) conclusions and recommendations.

There is a significant relationship between problem solving abilities and psychomotor skills for all the subjects included in this study. There are significant relationships between the WISC performance subtest of Block design and the five psychomotor skills of perception, emotional set, visual set, physical set and fine motor acts. There are significant relationships between the WISC performance subtest of Object Assembly and the five psychomotor skills listed previously. There is a significant relationship between the WISC Coding performance subtest and one of the five psychomotor skills, the fine motor acts.

The Navajos' performances were significantly higher in emotional set, visual set and fine motor acts than those of the Spanish Americans. The Navajo performances in fine motor acts were significantly higher than those of the Anglos. Similarly, the Navajo performances were significantly higher in the WISC Coding performance subtest than those of the Spanish Americans and Anglos involved in this study.

The Anglos involved in this study performed significantly higher in visual set than did the Spanish Americans and Navajos. Similarly, the Anglos performed significantly higher in physical set and fine motor acts than did the Spanish Americans. In the WISC Object Assembly performance subtest, the Anglos performed significantly higher than the Spanish Americans. The performances of the Spanish Americans involved in this study were at a lower level in all the three WISC performance subtests and on the five psychomotor skills than were those of the Anglos and Navajos.

66. Randquist, Bobby Wayne. An Investigation Of the Educational Attainment and Opportunities Of American Indian Students In the Anadarko Public School System. The University of Oklahoma, 1970. 170p. Major Professor: Dr. Glenn R. Snider. 70-23,990.

The problem was to investigate the educational opportunities and attainment of American Indian students in the Anadarko Public School System for the years 1956 to 1969 inclusive. More specifically, the study analyzed holding power and differences in the educational attainment of American Indians, whites, and Negroes in the Anadarko School System for the past fifteen years as shown by graduation rates and the results of California Achievement Tests. The study also analyzed the curriculum, school services, and administrative provisions existing in the Anadarko Schools.

While much evidence indicates that educational opportunities for Indian pupils have been more substantial in the Anadarko Public Schools than most Oklahoma communities, the following conclusions were reached:

The Indian languages of the area were not being passed on to the new generation. The Indian languages spoken in the home were not a detrimental factor for education of these students in the Anadarko School.

The effects of poverty definitely affected the education of Indian children in the Anadarko area since many Indian families had poverty level total incomes. Irregular attendance and frequent residence changes were probably deterrents to Indian student achievement in school and cultural differences tended to impinge unfavorably on the education of Indian children.

If the needs of Indian pupils are to be met, much must be done to improve the quality of the curriculum and special services in the Anadarko Schools. The significant lack of stability on the professional staff of the Anadarko Schools undoubtedly contributed negatively to the quality of the educational program.

The communication between the school and the Indian homes in Anadarko was slight. The Anadarko Secondary Schools did not have any programs devised specifically for the improvement of educational opportunities for Indian children.

The communication between the school and the Indian homes in Anadarko was slight. The Anadarko Secondary Schools did not have any programs devised specifically for the improvement of educational opportunities for Indian children.

In the Anadarko Secondary Schools, the white students performed best on standardized tests, with the Indian second, and the Negro students third.

The Anadarko School System needs to develop a meaningful in-service program for its educators, dealing with problems in Indian education and improved human relations.

67. Securro, Jr., Samuel. Concept Attainment Of Culturally Advantaged and Disadvantaged Children Utilizing Artificial and Life-Like Stimulus Tasks. West Virginia State University, 1970. 99p. 71-4839.

During recent years there has been an increasing amount of research conducted on the topic of concept attainment. Much of the research has evaluated concept attainment through the use of artifically constructed stimulus tasks manipulated according to conjunctive and disjunctive thinking strategies by college undergraduates or middle class children. Few studies have investigated the effects on concept attainment using meaningful life-like stimulus tasks or subjects from disadvantaged or advantaged cultural backgrounds. Moreover, no studies have been designed to simultaneously evaluate relational, disjunctive, and conjunctive attainment efficency of elementary school children. The purpose of the present study was to investigate whether differential stimulus material (artificial and life-like) would effect conjunctive, disjunctive, and relational concept attainment of disadvantaged and advantaged elementary school children across repeated problems.

The sample for the investigation consisted of fifth grade elementary school children (n=120) selected from three Washington County, Pennsylvania public schools. Ss were identified as culturally advantaged or disadvantaged and half of the Ss in each cultural group were randomly assigned to a laboratory task condition (n=30) or to a more meaningful task condition (n=30). These were further randomly assigned to three concept treatment groups-disjunctive, conjunctive, and relational. The stimuli for the laboratory task were constructed with a single geometric shape (circle) and were featured on 5 x 8 white index cards. They differed along three dimensions (size, number and color). For the life-like task, the stimulus dimensions (size, number, and affect) featured life-like figures (drawings of adults and children) on identical cards in a more meaningful array. There were 18 individual card instances for each of the stimulus tasks, and these were duplicated (making 36 instance cards per task) to control for memorizing card instances. All subjects were administered concept tasks individually by the same E, who informed S that he would be playing a game in which he was to determine if an instance card was a "yes-card" (positive instance of the concept) or a "no-card" (negative instance of the concept). The dependent measure was number of trials to a criterion of 15 consecutive correct responses. Only two of the three stimulus dimensions were relevant for each problem.

Data for each of the main effects and their interactions were analyzed by a 2 x 2 x 3 mixed analysis of variance with 2 repeated measures. This analysis revealed that concept attainment was not differentially affected by stimulus tasks (artificial or life-like), or status of the subject (disadvantaged or advantaged). However, with regard to these findings, a post hoc analysis revealed that disadvantaged Ss required significantly fewer trials to criterion than did advantaged subjects on trial I in the life-like relational attainment condition.

Significant differences in attainment were associated with concept type (conjunctive, disjunctive, and relational) and with repeated problems. As expected, subjects in conjunctive attainment conditions required significantly fewer trials than subjects in either disjunctive or relational conditions. However, no differential in attainment existed between disjunctive and relational tasks. A significant trials effect was found only for disjunctive tasks, although there was a decrement from trial I to II for conjunctive and relational tasks as well. A sex analysis revealed a trend toward fewer trials needed for attainment by female subjects.

In general, it was concluded that concept attainment can be effectively mediated by children presented with artificial or life-like stimulus tasks, and that as a group, there was little difference in performance between advantaged or disadvantaged subjects. Although conjunctive attainment was attained with significantly fewer trials, attainment with relational and disjunctive modes can be accomplished if opportunities for pretraining and learning effects are provided for the learner.

68. Cox, David Lowell. Component Processes In Judgments Of Perceived Similarity. University of Minnesota, 1972. 163p. 72-20,099.

This research tested the adequacy of a generalization model to account for judgments of perceived similarity. It was hypothesized that Ss' internal representations of a collection of stimuli could be represented as points in a psychological space, the underlying dimensions of which are gradients of generalization. According to this model, the closer two stimuli are on these gradients, the more difficult it is to discriminate between them, and the more similar they will be judged by S.

The particular generalization process involved in such judgments is thought to depend on whether Ss perceive the underlying dimensionality of the stimulus set. More specifically, if the dimensionality is "unanalyzable," similarity judgments among n-dimensional stimuli are a direct function of n-dimensional generalization. If the dimensionality is "analyzable" such judgments are a function of some combination of one dimensional generalizations.

Two stimulus sets were constructed which were expected to differ in the ease with which Ss perceive the dimensions used in their construction. The stimulus sets were: (1) Munsell color chips varying in value and hue, and (2) geometric forms (circles) varying in angle of a diameter from the horizontal and length of diameter.

Ss performed in three similarity tasks using either the color or form stimuli. In one task, they were asked to judge the similarity among pairs of stimuli varying simultaneously on both dimensions. In the two additional tasks, Ss were asked to make judgments among pairs varying on only one of the two dimensions, respectively. Ss also learned to pair the stimuli from the one and two dimensional sets with numbers in three paired associate (PA) tasks, under the assumption that confusion frequencies among the responses would provide an index of stimulus generalization. Response latencies (RL) were collected during the similarity and PA tasks to assess the processing time SS required while making their judgments.

Thirty Ss performed in one of three conditions. In conditions 1 and 2, Ss performed the three similarity and PA tasks using the color and circle stimuli, respectively. Condition 3 was identical to condition 2, except that Ss were instructed to attend to the relevant dimensions to assess optimal performance with stimuli which have previously been shown to be "analyzable."

Results showed that, for both color and circles tasks, stimulus pairs which varied on two dimensions were judged as more dissimilar than stimulus pairs which varied on only one dimension. Furthermore, judged dissimilarity for each stimulus set was exponentially related to confusion frequencies within these same sets. In general, as confusion decreased, perceived dissimilarity increased at an increasing rate. Moreover, RL was negatively correlated with mean dissimilarity ratings for all similarity tasks. The more dissimilar the stimuli, the less time required to judge the differences between them.

In condition I, the confusion data indicated that Ss relied primarily on value differences in judging the similarity of two dimensional color pairs. In conditions 2 and 3, the confusion data indicated that Ss utilized both dimensions in judging the similarity of two dimensional form pairs. In condition 3, however, in which the dimensions were specified, mean RL was uniformly lower for all similarity tasks, apparently due to a reduction in dimensional discrimination time.

This research suggests that when making a similarity judgment Ss are giving an estimate of the discriminability of stimulus dimensions, and the confusability among stimuli along those dimensions.

69. Marazzi, Maureen Katherine. Academic Performance and Prediction Of Performance Of Specially Admitted, Economically Disadvantaged Students and Other Students In An Urban Restricted-Admissions High School. New York University, 1971. 159p. Chairman: Professor Virgil A. Clift. 72-20,650.

The purpose of this study was to compare the academic performance, during the years 1966 through 1969, of three groups of male students: two groups were regularly admitted to a New York City specialized high school via an Admissions Test and one group, classified as economically disadvantaged, scored below the cutoff point on the Admissions Test but was especially admitted to the specialized high school via successful completion of a compensatory summer program.

Data, obtained from student cumulative, permanent record cards, were analyzed by comparing academic performance of the three groups; by determining predictive relationships between the scores on the Admissions Test and the scores on the three measures of academic performance; and by determining dropout proportions in the three groups. Academic performance was measured by comparing, among random samples of the three groups (N=160, each), scores in the ninth grade on the Metropolitan Achievement Test, Advanced Reading Test, Form Bm; scores in the ninth grade on the New York State Algebra Regents Examination; and scores expressed as cumulated Weighted Grade Point Averages for each semester the groups were in high school. To test the differences in mean performances among the three sample groups on the three measures of academic performance, analysis of variance was used.

The study also compared the predictive relationships, by means of regression equation, between scores on the Admissions Test (independent or predictor variable) and the scores on each of the three measures of academic performance (dependent or criterion variables) for each of the three sample groups. In addition, the proportions of variance in the scores on each of the three dependent variables predictable by the variance in the scores on the Admissions Test were determined for each of the three sample groups by means of the coefficient of determination.

Finally comparisons were made of the significance of the differences between the proportions of students in the total regularly admitted student population who dropped out of the specialized high school in each of the four years of the study. The model used was the one for testing differences between uncorrelated proportions, making use of a z ratio.

Findings were accepted as statistically significant at the .05 level.

Findings

Null Hypothesis I, stating that there would be no difference among the three groups in performance on the Metropolitan Achievement Test, Advanced Reading Test, Form Bm, was rejected at the .05 level.

Null Hypothesis 2, stating that there would be no difference among the three groups in performance on the New York State Alegbra Regents Examination, was partially rejected at the .05 level.

Null Hypothesis 3, stating that there would be no difference among the three groups in obtained Weighted Grade Point Averages, was partially rejected at the .05 level.

Null Hypotheses 4, 5 and 6, which stated that there would be no difference in the predictive relationships between scores on the Admissions Test and scores on each of the three criterion variables (Metropolitan Achievement Test, Advanced Reading Test, Form Bm; New York State Alegbra Regents Examination; Weighted Grade Point Averages), respectively, were rejected at the .05 level.

Null Hypothesis 7, which stated that there would be no difference between the proportion of the total population of specially admitted students dropping out of the specialized high school as compared with the proportions of the total population of regularly admitted students dropping out for each of the four years of the study, was accepted at the .05 level.

70. Maytubby, Willard Dorse. Comparative Prediction Of Academic Achievement Among "Disadvantaged" and "Middle-Class" Children. St. Louis University, 1971. 139p. 72-5302.

This study was undertaken to investigate social class differences in academic and related criterion performance for subjects of similar intelligence, who were differentiated on socioeconomic status.

Since the I.Q. score is not an inherent characteristic of the organism, but a score on a particular test, the question is raised: Is there a statistically significant difference in academic performance between "disadvantaged" and "middle-class" children in the (1) 110-125 I.Q. bracket, or (11) the 90-105 I.Q. bracket?

Records of the St. Louis Public Schools were searched in order to identify two groups of "disadvantaged" and "middle-class" 9th grade students who scored in the (1) 90-105 I.Q. bracket and (II) the 110-125 I.Q. bracket as determined by the Lorge-Thorndike Test.

A random sample of each group of these children was taken until a total sample of 53 children was secured.

SES_3 sample subjects were slightly superior to subjects classified as SES_5 in vocabulary/reading, English, and language, but not in social studies and arithmetic. In the latter two areas, SES_5 subjects excelled. None of the differences however, achieved statistical significance.

No significant differences in performance between SES_3 and SES_5 sample subjects were found on most personal adjustment variables. However, SES_3 sample subjects of I.Q. Group I attained scores on a few variables which classified them as more "tolerant", as more inclined to create a "good impression" and "achieve via conformance."

For I.Q. Group II, a statistically significant difference in performance between SES_3 subjects in personal adjustment was found on only one variable (flexibility). SES_5 subjects were found to be statistically more flexible in social situations than SES_3 subjects.

In spite of the greater range of knowledge and experiences available to middle-class children, the middle-class children of this study failed to perform significantly better than the lower social status subjects on most variables as determined by statistical test results (t test)

71. Wolfson, Sara Jane Crawford. A Comparative Study Of the Prediction Of Academic Achievement Of Anglo-American, Mexican-American, and Negro Students In Junior High School. University of Houston, 1971. 107p. 72-19,468.

The purpose of this study was (1) to determine if academic achievement of Anglo-American, Mexican-American, and Negro students in junior high school can be predicted from a set of intellective and nonintellective variables and (2) to ascertain if ethnic group membership is related to variables used for best prediction of academic achievement for those students.

McGuire's model of academic behavior served as a theoretical framework for the study. Eleven variables were used to predict ninth grade achievement for 90 Anglo-American, 77 Mexican-American, and 91 Negro students. All subjects attended integrated urban schools located in communities of comparable lower socioeconomic status. Zero-order, part, and multiple correlation procedures were used to analyze the data.

The criterion was approached in two manners: grade nine quality point average and grade nine QPA residual (part correlation techniques were used to remove the variance associated with grade eight QPA predictor). Intellective variables included convergent thinking determined by the California Test of Mental Maturity, Short Form, divergent thinking measured by Seeing Problems, symbolic aptitude assessed by Concealed Words, maintaining a convergent set indicated by STEP Listening, and acquired response repertory determined by grade eight QPA. Nonintellective variables were conformity motivation measured by the Survey of Study Habits and Attitudes, self-esteem assessed by the Checklist of Trait Names, internal control determined by the Intellectual Achievement Responsibility

Questionnaire, birth order, expectations of significant others indicated by Peer Acceptance: Academic Model, and sex of student.

Intellective and nonintellective variables were related significantly to grade nine QPA for each group, but conformity motivation and grade eight QPA were the only variables with significant correlation coefficients for all groups. Grade eight QPA was the best predictor of grade nine QPA for each group. Values of r for this variable were 0.749 for Anglo-Americans, 0.684 for Mexican-Americans, and 0.809 for Negroes. Significant multiple correlation coefficients with grade nine QPA residual were obtained for all groups. Conformity motivation and internal control made significant contributions to the multiple R of 0.456 for Anglo-American pupils. Conformity motivation was the single variable contributing to the r of 0.684 for Mexican-American students. Divergent thinking was the only significant predictor of grade nine QPA residual for Negroes and the correlation coefficient for this variable was 0.224.

Results confimed academic achievement of Anglo-American, Mexican-American, and Negro students can be predicted in junior high school and ethnic membership tended to influence the choice of predictor for those students. Comparisons among groups showed Mexican-American students to be least predictable and the importance of familial and of culture specific attitudes and values was postulated as a possible cause of the negative and nonsignificant relationships of predictors to QPA for the students. Similarities among correlates of achievement for Anglo-American and Negro students were evident. The importance of educators fostering ethnic membership when planning learning experiences for minorities was discussed.

72. Bloom, Barbara Jane. The Effects Of the Use Of Imagery In Learning In Relation To Race, Socio-Economic Status, and Age. The University of Wisconsin, 1972. 177p. Supervisors: Assistant Professor Joan I. Roberts and Professor James J. McCarthy. 72-13,965.

It is important that we attempt to explain why many children, especially black and/or low socio-economic status (SES) children are failing in school. The purpose of this study is to look at differential achievement by looking at one specific aspect of learning, the use of imagery. Specifically, this study asks the question: what are the relationships between age, race, SES and the development of the use of imagery in learning?

In this study, subjects (Ss) were randomly selected and randomly assigned to three different treatment conditions.

1. Imposed linguistic - side by side pictures, naming

within the context of a sentence ("The baby waves the flag.")

2. Imposed pictorial-interacting pictures, with simple naming ("baby" and "flag")

3. Control-side by side pictures with simple naming.

In each treatment condition, Ss learned two lists of twenty picture pairs.

Subjects represented high and low SES, black and white races, and grades one and six. The study, therefore, has a 2 x 2 x 2 x 3 factorial design. A control group was utilized and only post-test data was gathered. In an attempt to reduce test group differences, all picture pairs were presented to the Ss on 35mm slides with taped instructions and verbalizations. Subjects were tested in groups of six.

The data of this study were simultaneously subjected to both the Statjob and Finn programs of Analysis of Variance. In addition, experimental test scores were compared to standardized test scores of achievement and (for sixth grade only) of IQ. Both first grade and sixth grade samples represented significant differences in achievement as measured by standardized tests. These differences represented differences by SES, and by the SES x race interaction. Significant differences in IQ were found in the sixth grade sample. This difference represented a difference by SES, and by the SES x race interaction.

Despite differences in IQ and/or achievement means for sampling schools, subjects yielded no significant differences in mean total correct responses over all treatment conditions, except first grade subjects who displayed significant differences in the linguistic treatment condition. At this grade level, the low SES white Ss were significantly superior on the experimental test, despite having been sampled from a population which was significantly inferior in the achievement test. Elaborated PA tasks (both linguistic and pictorial conditions) yielded significantly superior mean total correct responses than did the control condition for all sample categories. Sixth graders performed significantly better over all treatment conditions than did first graders. There was no significant treatment x grade interaction, though a trend indicated that first graders found the linguistic condition more facilitative and sixth graders found the pictorial condition more facilitative.

The effects of elaboration over contingency relationships raises many questions regarding the effectiveness of rote learning and stimulus-response teaching in educational institutions. These questions are especially important considering the fact that in this study no main effects for race or SES were found over any treatment condition, despite marked differences in IQ and achievement over race and SES, in all these samples. It would seem that teaching in terms of contingencies is precisely what should not be done, especially with low SES and/or black children. In short, students must not be defined in terms of hypothetical learning abilities as depicted by standardized tests, and then taught by contingencies. Rather, the implications of this study are that meaning and relationship should be the basis for the teaching/learning situation for all children, without regard to scores on standardized tests.

73. Closson, Edward Eugene. An Investigation Of the Relation Between Academic and Non-Academic Achievement and Self Concept of Disadvantaged High School Students. St Louis University, 1972. 99p. 72-31,460.

The present study is concerned with the problems in the area of improving the education of disadvantaged students in the public high school. The study investigated the effects of incorporating an open classroom experience in a special treatment program.

It was the purpose of this study to test the effect of an open classroom experience with disadvantaged students in an attempt to see if the open classroom would produce a change in self concept and academic and non-academic achievement. The investigator posed seven hypotheses which would test the concepts to be studied. These seven hypotheses state that positive significant differences would occur in self concept, school attitudes, grade point average, attendance, employment, and drop-out rate after a period of open classroom experience. Comparisons of self concept were made on a pre- to post-test schedule, with an experimental and control group, to measure the significance of the experimental conditions. Comparisons of the remaining variables were made at the end of one semester.

Subjects used were high school students, 16 years of age and older, identified as being disadvantaged. Sixty students were randomly chosen from the one hundred and twenty identified, and placed in the experimental group. The remaining sixty students not selected for the treatment comprise the control group.

Measures used to test change were self concept test, the Tennessee Self Concept Scale; a school attitude questionnaire; the first semester grade point average; attendance, employment and drop-out record of each student. The statistical measures employed were the t test, chi square analysis, and tests of independent proportion.

Results of the data indicated that (1) there were significant differences in the pre- to post-test measure within the experimental group (2) there was no pre- to post-test difference in the control group, (3) differences in school attitudes were significant, (4) there were no differences on GPA and attendance, (5) there were high significant differences in employment and drop out rate favoring the experimental group.

Both groups had poor initial self concepts, which supports the theory that disadvantaged students will also have poor self concepts. The experimental group experienced significant gain in self concept over the period of the study while the control group showed no change. No significant changes occured on GPA or attendance although differences were found between the groups on school attitudes. Very significant differences were found on employment and drop out rate. Experimental students acquire proportionally more jobs and dropped out less than did students in the control group.

If, as this study suggests, disadvantaged high school students have poor self concepts, it would appear that the initial focus of remediation needs to be on non-academic factors. The study also suggests that these students may need the experience of an open classroom treatment to help them enhance their self concept.

74. Miller, Max Donald. Patterns Of Relationships Of Fluid and Crystallized Mental Abilities To Achievement In Different Ethnic Groups. University of Houston, 1972. 86p. 73-9117.

Important variations of mental abilities and their relationships to achievement patterns in different ethnic groups have not been thoroughly studied in a systematic manner. A basic premise is that ethnic influences result in different kinds of intellectual skills. This premise can be translated into questions of the meaning, in terms of fluid and crystallized mental abilities, of ethnic group membership and the relationship of patterns of mental abilities to achievement in different ethnic groups. The purpose of this study was to test the hypotheses that there were no differences in patterns of mental ability among different ethnic groups and that there were no differences in patterns of relationships between ability and achievement for different ethnic groups.

By examination of the entire set of means on measures of mental abilities it was possible to determine that three ethnic groups--Mexican American, White, and Black--could be differentiated in terms of fluid and crystallized intelligence. Stepwise discriminant analysis was used to determine the dimensions of differences that occurred. Canonical correlation was used to determine relationships between ability and achievement variables; coefficients of congruence were calculated for pairwise comparisons of canonical vectors between groups, and specific ethnic patterns of relationships were found.

Two discriminant functions, fluid verbal reasoning and fluid numerical facility, were found to separate the three ethnic groups. The White group was characterized by a predominant use of fluid ability for educational achievement, the Black group was characterized by its use of crystallized ability, and the Mexican American group was characterized by a combination of fluid and crystallized ability for educational achievement.

The study suggested an educational pluralism to meet the educational needs of different segments of the society--a pluralism which would tend to maximize educational attainment by differential approaches to achievement through fluid and crystallized abilities.

75. Wilderson, Ida-Lorraine Jules. The Relationships Between Black Awareness, Orientation For Achievement and Measured Achievement Of Urban High School Students. University of Minnesota, 1972. 158p. 72-27,819.

This study was an investigation of some of the socializing factors which influence personality adjustment and school achievement of black high school students of an Eastern city which is 85 percent black. The major research question was how do Black Awareness, orientation for achievement, and measured achievement interact.

The sample of the study (N=215) was selected from a population of all junior and seniors present in School A, B, and C on the day the questionnaire was administered. Participants were members of the American History and English classes which were to be held on the day and at the time the questionnaire was administered. The sample included 196 black and 17 white students. The latter group was so small that it had negligible value for comparison.

The instruments used in this study were a Black Awareness Scale devised and pilot tested specifically on black pupils for this study; several established scales, the composite of which formed the orientation for achievement variable; and end of year school marks in English, Math, Science and Social Studies which were averaged to form the grade point average variable. Each student was also asked to rate himself in Black Awareness and to make suggestions for school changes.

The questionnaire was administered in three schools during a regular 45 minute class period. Questionnaire responses were analyzed by computer using the rho correlation and analysis of variance procedures. The decision rule for level of significance was .005 for the rho correlation and .05 for the analysis of variance.

Results of the hypotheses tested were:

Hypothesis One - Among black students Black Awareness will be positively related to achievement orientation.

2. Hypothesis Two - Among white students there will be no relationship between Black Awareness and achievement orientation. Result: Essentially no data although attempt was made. The small number of responses (n=17) wasn't sufficient for analysis.

3. Hypothesis Three - Among black students Black Awareness will be positively related to self-concept of ability. Result: The hypothesis was supported.

4. Hypothesis Four - Among white students there will be no relationship between Black Awareness and self-concept of ability. Result: Essentially no data although attempt was made. The small number of responses (N=17) wasn't sufficient for analysis.

5. Grade averages for black students of high Black Awareness will be better than grade averages of black students of low Black Awareness.
Result: The hypothesis was supported.

6. Black Awareness scores will be higher in schools located in areas of high black population density than in areas of low black population density.
Result: The hypothesis was not supported.

The major conclusions support associations for black subjects of this study between Black Awareness and achievement orientation; between Black Awareness and self-concept of ability; and between measured achievement and high-low degrees of Black Awareness. Black Awareness and grade point average, however, did not manifest any significant relationship.

The implications of these findings for education include support for:

1) The inclusion of black historical and contemporary materials as an integral rather than isolated part of the standard curriculum.
2) The need for the presence of black personnel at all levels in the school and especially at the administrative level given the significant association between Black Awareness and achievement orientation.
3) The need for continued efforts to determine how Black Awareness effects actual scholastic performance.
4) The need to analyze further student interest in academic and non-academic school changes.

76. Gualderon, John Guerin. Predicting and Assessing Academic Achievement Of Disadvantaged High School Students Utilizing A Test Of Study Habits and Skills. University of Southern California, 1973. 143p. Chairman: Professor Metfessel. 73-7250.

This investigation was primarily concerned with establishing the validity of the Test of Study Habits and Skills (an experimental instrument) in predicting the academic achievement of disadvantaged twelfth-grade students. Secondarily, it was concerned with establishing the value of formal instruction in appropriate study habits and skills for disadvantaged high school students with regard to future academic success as determined by grade-point average.

Following successful pilot studies, this investigation employed several samples randomly selected from students enrolled in English-Government classes. The samples included in this investigation had the following number of disadvantaged twelfth-grade students: (a) for 1969, 181 experimental school subjects (88 boys and 93 girls), and 228 control school subjects (94 boys and 134 girls); and (b) for 1970, a cross-validation study, 80 experimental school subjects (36 boys and 44 girls), and 70 control school subjects (35 boys and 35 girls). The schools investigated were located in the south central portion of the Los Angeles urban area and qualified for government funding under the Elementary and Secondary Education Act, Title I, establishing programs to compensate for social, educational, and cultural deficiencies. The subjects of the experimental school were given formal instruction in appropriate study habits and skills whereas subjects in the control school were not given such formal instruction. For each sample investigated three variables were obtained: (1) grade-point averages (dependent variable); (2) scores on the Lorge-Thorndike Intelligence Tests, Form 1, Verbal Battery (independent variable); and (3) scores on the Test of Study Habits and Skills (independent variable). Appropriate descriptive statistics were calculated for all the samples: (1) simple and partial coefficients of correlation; (2) multiple coefficients of correlation; (3) multiple coefficients of determination; (4) beta weights of the independent variables; (5) F ratios; and (6) t tests. Sex as a possible factor influencing study behavior associated with academic achievement was also investigated.

The data collected revealed that the Test of Study Habits and Skills correlated (simple and partial coefficients of correlation) higher (numerically) with the dependent variable than a conventional aptitude test (Lorge-Thorndike Intelligence Tests). Also, the data revealed that the Test of Study Habits and Skills predicted in most instances academic achievement of disadvantaged twelfth-grade students as well as or better than the aptitude test. Moreover, when the Test of Study Habits and Skills was included in the multiple predictive regression equation, the emerging multiple coefficients of correlation were numerically higher than corresponding simple or partial coefficients of correlation. This latter fact, along with other data obtained from using beta weights of the 1969 samples to predict academic achievement of corresponding 1970 samples, revealed that the Test of Study Habits and Skills made a substantial contribution in the multiple predictive regression equation. The Kuder-Richardson estimates of reliability of the Test of Study Habits and Skills, using formula 20 and 21, ranged from .90 to .93.

(1) The Test of Study Habits and Skills was a valid predictor of academic achievement of disadvantaged high school seniors; (2) it made a significant contribution when included as a predictor variable in the multiple predictive regression equation; and (3) data indicated that formal instruction in appropriate study behavior (experimental condition) could not be established, upon cross-validation, as making any significant difference with regard to the academic achievement of disadvantaged twelfth-grade students.

Recommendations: The following are needed: (1) a factor-analytic study of the Test of Study Habits and Skills; (2) an item-analysis of the Test of Study Habits and Skills; (3) reliability studies establishing stability of test performance over time; and (4) further investigation of variables influencing the academic achievement of disadvantaged high school students.

77. Mayer, Richard Allen. The Postpartum Pupil: Her Educational History, Special Concerns and Relationships With A Secondary School Program. The University of Connecticut, 1973. 193p. 73-9820.

The purpose of this study was to determine if certain distinctive characteristics could be found in postpartum high school pupils in terms of their educational histories, their personal concerns and their relationships with the secondary school program. Specifically, this study sought to answer the following questions:

1. What were the previous school histories of the postpartum pupils in the following respects: academic achievement, attendance records, retention in grade, discipline problems and school-centered extra-curricular activities?

2. What were the major concerns of these girls during their attendance in school after their return following delivery?

3. What were the attitudes of postpartum pupils toward the school program after their return to the conventional high school?

4. Could the difference in selected characteristics of the teachers with whom postpartum girls related best and those with whom they related most poorly be identified?

In considering educational problems of postpartum pupils, school personnel were concerned with a pupil whose experiences, concerns, outlooks and relationships may vary markedly from pupils that school personnel have known over the years. Teachers and administrators should be prepared to cope with these changes.

The study was limited to a large (enrollment of 1,900) inner-city high school located in an urban community of over

50,000 people. The study was limited to a group of girls who gave birth to live babies which were still alive at the time of the study. These girls, who were enrolled in the high school at the time of the study, had elected to remain in the school system while pregnant, to return to the conventional high school at the termination of their pregnancies, and to keep their babies. Although this study investigated quantitative relationships along with other data, it must be considered descriptive rather than statistical.

The procedures used in this study were: 1) identification and selection of the sample; 2) interviews with the girls in the study group; (3) investigation of school records; 4) administration of a questionnaire to a matched control group of girls with no record of pregnancy; 5) administration of the C-R Opinionaire to the faculty of the study high school.

Conclusions

1. With the exception of their lack of participation in extracurricular activities, the previous school histories of the girls in the study group showed no unusual characteristics that would identify them as being different from other girls in the school.

2. Except for those concerns directly and specifically related to motherhood, the concerns of the girls in the study group were not very different from those of other girls in the school.

3. The girls in the study group were not strongly concerned with their parental responsibilities.

4. Although pregnancy constituted crises in the lives of girls, motherhood seemed to present a minimum of problems.

5. The teacher characteristics found most attractive and most unattractive by the girls in the study group indicated no special standards by which postpartum pupils judged their teachers.

6. The relative conservatism or liberalism of the teachers of the study girls had no apparent bearing on the relationship of postpartum girls with their teachers.

Other Studies

78. Lin, Chen-shan. An Experimental Study Of the Visual Eidetic Imagery Of Chinese School Children. University of Hawaii, 1971. 155p. 72-24,375.

The purposes of this study were (1) to investigate the incidence of visual eidetic imagery among Chinese school children, and (2) to test Travers' (1970) assumption, which stated that eidetic imagery might be due to a retarded development of erasure mechanism.

A sample of 519 subjects were randomly drawn from a population of 130,000 school children of Grades 3 to 6 in Taipei City. A method similar to that used by Haber and Haber (1964) was adopted to screen the eidetic children from this sample. Results indicated that if the "Strict Criteria," the same criteria used by the Habers, were used, 3.3% of the 519 subjects were identified as eidetic children. By the "Less Strict Criteria," the percentage was 5.8%. The former percentage (3.3%) was significantly smaller than that found in the Habers' study (8%). Both these studies, however, revealed that eidetic imagery is not a widely prevalent phenomenon.

Travers' assumption was tested in four experiments. The rationale upon which these experiments were based was that because of a retarded erasure mechanism, images from antecedent stimuli continue to persist for a relatively long time and accumulate, overlap, or superimpose with the image, or even the percepts, of succeeding stimuli. Thirty eidetic children selected by the "Less Strict Criteria" and 30 non-eidetic children were used as subjects.

Results of these experiments can be stated as follows: (1) The mean reaction time to the offset of the visual stimulus for the eidetic children was significantly longer than that for the non-eidetic children. (2) In a task requiring the subjects to search out the absence of target stimuli, the mean search time was not significantly different for the groups established by the "Less Strict Criteria," but eidetic subjects selected by the "Strict Criteria" required significantly more time in this task than their counterparts. (3) The eidetic children demonstrated a persisting visual image in several ways. They reported a compound picture when two slide pictures were presented in sequence. They correctly identified figures that were "hidden" in sequentially presented dot-patterns. Also, they reported a stereoscopic effect when the left- and right-eye views were presented to the left and right eyes without the advantage of a stereoscope. Further, they reported the perception of an expanding spiral after viewing a rotating-contracting spiral while the stationary spiral had in fact been removed. (4) In EEG tests, the post-stimulation recovery time of the eidetic children was significantly longer than that for the non-eidetic children. The post-stimulation alpha index for the eidetic children was significantly smaller than that for the non-eidetic children.

While deductions based upon Travers' assumption were generally confirmed, there were several results that indicated that the construct of a deficient erasure mechanism was not sufficient to account for the phenomena associated with eidetic imagery. The limitations of Travers' assumption were discussed and a new model for the phenomena of eidetic imagery tentatively proposed.

79. Neyman, Jr., Clinton Andrew. School-Related Factors Affecting Grade Retention Of Inner-City Elementary School Children. The George Washington University, 1971. 154p. 72-3741.

To investigate factors involved in grade retention of inner-city children and to compare their classroom performance and adjustment with these characteristics of students not retained.

The population consisted of approximately 5,000 students in grades four, five, and six in 14 inner-city public schools of the District of Columbia during the 1969-70 school year. The sample of 540 students had equal numbers of boys and girls at each grade level and in each age-grade category (normal age-grade placement, one year behind, and two years behind).

The sources of data were (1) the Student Identification and Evaluation Form, a teacher-prepared document used operationally in evaluating Title I programs, and (2) the Sequential Tests of Educational Progress (STEP) Reading Test.

The investigation was designed to test the following hypotheses: with ability held constant, no significant differences will be found (1) among three age-grade groups, (2) between boys and girls. (3) among grade levels, or (4) for interaction among these variables.

A factorial design analysis of covariance (3 x 2 x 3) was used with 30 subjects in each cell, for each of 23 nondemographic items. The covariate was a standard score obtained from the STEP Reading Test. Four multiple discriminant analysis runs were made.

Findings. (1) Out of twenty items analyzed, only one did not show a significant difference between the age-grade groups. However, when evaluations were adjusted by covariance, five of the 19 no longer were significant: getting along with other students, withdrawn-outgoing, follower-leader, friendly-hostile, and behavioral problems. (2) Ten items showed significant differences between boys and girls, and ten did not. However, when adjusted by covariance, three lost their significance: positive-negative attitude, friendly-hostile, and reading retardation. (3) Nine items were nonsignificant and 11 showed significant differences for grade levels. (4) The three significant interactions which occurred are not noteworthy. (5) There were significant differences between age-grade groups and between boys and girls on the STEP Reading Test and standard scores. Conclusions. (1) Teacher evaluations of the personality characteristics of friendly-hostile, withdrawn-outgoing, follower-leader, getting along with other students, and behavioral problems all appear significantly related to reading ability, as measured by the STEP Reading Test, as shown by adverse ratings on these five traits for students with low reading test scores. (2) Students cannot be classified as to potential for school dropout or juvenile delinquency solely on the basis of standardized reading test scores, because when differences resulting from these scores are removed, there are still major differences in teacher evaluations between students who are over age in grade and those who are not. (3) Teacher evaluations of boys and girls on these items, positive-negative attitude, friendly-hostile, and reading retardation, are significantly related to performance on the STEP Reading Test. (4) Teachers apparently are not entirely influenced by test scores in their judgment of student reading retardation. There is evidence that this judgment is not completely accounted for by teacher evaluations of personal and social characteristics, but is highly related to teacher evaluations of arithmetic retardation. (5) Some teacher judgments appear related to differential achievement expectancies for boys and girls, particularly in the area of arithmetic (for boys) and reading (for girls).

80. Halpin, Glennelle McCollum. The Effects Of Visual Deprivation On the Creative Thinking Abilities Of Children. The University of Georgia, 1972. 147p. Supervisor: E. Paul Torrance. 72-34,082.

The purpose of this study was to determine if there are significant differences in verbal fluency, verbal flexibility, and verbal originality between (1) sighted children and residential and day school blind children, (2) sighted and residential blind children, (3) sighted and day school blind children, (4) residential and day school blind children, and (5) residential blind children only with respect to sex, race, and age.

One hundred and sixty-two children, Caucasian and Negro males and females, age 6 through age 12, served as subjects for this study. Eighty-one subjects were functionally blind; instruction in Braille was essential to their education. Sixty-one of the blind subjects were enrolled in residential schools for the blind in Georgia, Alabama, and South Carolina. Twenty of the blind subjects and all 81 sighted subjects were enrolled in public schools in Georgia.

The instrument used was the Torrance Tests of Creative Thinking, Verbal Form B, Activities 4, 5, 6, and 7, which yields scores on verbal fluency, verbal flexibility, and verbal originality.

The data were analyzed for the sighted and residential and day school blind subjects, for the sighted and residential blind subjects, for the sighted and day school blind subjects, for the residential and day school blind subjects, and for the residential blind subjects alone using a two-factor analysis of variance design. Factors included were seeing status, race, age, and type of school. For each factor there were two levels except for the age factor in some analyses where there were three levels. Both univariate and multivariate analyses were computed with scores on verbal fluency, verbal flexibility, and verbal originality as the dependent variables. The Scheffé method of multiple comparisons was also used.

In all comparisons between the sighted and blind subjects, significant differences were found in verbal fluency, verbal flexibility, and verbal originality. The means for the blind subjects were larger than the means for the sighted subjects. In the comparison between the sighted and residential blind subjects, the Race X Seeing Status interaction was significant for verbal originality in the univariate analysis and for all three variables combined in the multivariate analysis. The difference in the means on verbal originality between the Caucasian blind and sighted subjects was substantially larger than the difference in the means between the Negro blind and sighted subjects. In the comparison between the sighted and day school blind subjects, the Age X Seeing Status interaction was significant for verbal flexibility in the univariate analysis. The difference in the means on verbal flexibility between the blind and sighted subjects in the 9-12 age group was substantially larger than the difference in the means between the blind and sighted subjects in the 6-8 age group. The main effect of age was significant in the comparison between the day school and residential blind subjects on verbal flexibility with the mean for the 9-12 age group being larger than the mean for the 6-8 age group. In the race-age analysis for the residential blind subjects the mean on verbal flexibility for the Caucasian subjects in the 11-12 age group was significantly larger than all the other means, but the main effects of age and race were not significant.

Findings should be considered as tentative until more research on the creative thinking abilities of the blind can be conducted.

81. Hull, Gary L. A Comparative Study Of Selected Ethnic Characteristics Of Information Sources and Their Influence On the Receiver. Michigan State University, 1972. 169p. 73-5405.

The purpose of this study was to investigate the influence that selected ethnic variables of an information source have on selected Black and White pupils. The research was focused on the effects of the auditory and visual channels of an information source on the pupils. The major concern of this study was to determine if White or Black pupils were influenced more by an information source with selected ethnic characteristics than by alternate sources with differing sets of selected ethnic characteristics. The voice of the narrator and the physical characteristics designating the race of individuals depicted in the visuals were the variables that were manipulated.

The subjects that participated in this study were selected from a population comprised of sixth-grade pupils attending a single public elementary school within a city of 200,000 people. The school was located in a racially-mixed neighborhood. Sixty White subjects and sixty Black subjects were randomly selected from the population and then randomly assigned appropriately to one of the six treatment groups.

All treatment groups received the same message. An instructional tape/slide presentation was the information source. The message dealt with the misuse of drugs. Two variables in the information source, the voice of the narrator and the race of the people depicted in the visuals, were manipulated for the experience. The two voices were selected from voices previously determined to be distinguishable as either belonging to a Black or White individual. The race of the individuals depicted in the visuals was either Black or White. Five instruments were designed for this study. One was a retention test that had been pre-tested. Three semantic differential scales were also designed to measure the subjects' concepts of "trustworthiness" and "expertness" of the information source, and the concept acceptability" of the message. A fifth instrument was developed to measure the subjects' "preference" for the various information sources. Reliability of the instruments were determined by Hoyt's Estimate of Reliability Formula.

The experiment was conducted in three rooms that normally served as sixth grade classrooms. Three sixth grade teachers from the school served as proctors.

An analysis of covariance for the retention test and a multivariate analysis of variance for the attitude scales were used for testing the seven statistical hypotheses for the main effects or the interaction effects. All hypotheses were tested using the .05 level of confidence with the appropriate degrees of freedom.

Analysis of the data supports the following conclusions:

1. Information sources with either a distinguishable White voice or a distinguishable Black voice have an equal amount of influence on students of the sixth grade.

2. Students of the sixth grade level perceive information sources with visuals depicting all White people as having more "expertness" than sources with visuals depicting all Black individuals. The same students also have a "preference" for information sources with visuals depicting a combination of Black and White people over information sources depicting all Black people. (A close examination of the data indicates that these main effects are due to the interaction effect between the White subjects and the visuals of the information sources.)

3. It was concluded from the data that Black subjects perceived all information sources as having more "expertness" than did the White subjects. The data also indicated that Black subjects give a higher "preference" rating to all information sources that did the White subjects. It was also concluded that the White subjects scored higher on the retention test than did the Black subjects. The results from the "retention test" can probably be contributed to several irrelevant variables that were operating in the school environment.

4. White students respond equally as well to information sources with a distinguishable Black voice as they do to information sources with a distinguishable White voice. Also, Black subjects respond equally as well to information sources with a distinguishable White voice as they do to information sources with a distinguishable Black voice. It is concluded that Black subjects and White subjects are not affected more positively by voices of their own race.

5. The matching of a distinguishable White voice or a distinguishable Black voice with visuals depicting Black or White people does not have a significant affect on sixth grade students.

6. White students of the sixth grade level perceive information sources with visuals depicting all White individuals, or a combination of White and Black individuals as having more "expertness" than information sources with visuals depicting all Black people. White students also have a preference for information sources with visuals depicting all White individuals, or a combination of White and Black individuals over sources depicting all Black individuals.

7. It is concluded that any combination of distinguishable White or Black voices with visuals depicting White or Black people in an information source does not significanlty differ in the affect on black or White students.

82. Middleman, Ruth R. *The Impact Of Nonverbal Communication Of Affect On Children From Two Different Racial and Socio-Economic Backgrounds*. Temple University, 1972. 345p. Chairman: Thomas H. Hawkes. 72-26,188.

Systematic study of human communication has been confined to this century, primarily from World War II to the present. While the preponderant research interest has been in the verbal, semantic area, more recently the nonverbal component has been seen as an important, if less understood, aspect of all human face-to-face interactions and has become an object of descriptive and experimental research.

A model of multiple channels in a communication has gained increasing attention through the work of Davitz (1964), Scheflen (1967), Birdwhistell (1968), Wiener and Mehrabian (1968), Ekamn and Friesen (1969), and others. The exploratory experimental research of Wiener and Mehrabian (1968), Kashinsky and Wiener (1969), and Brooks et al. (1969) aimed to examine the differential responsiveness of middle and lower class children to words and tone in communication. Their findings lend support to the work of Reissman (1962, 1964), Bernstein (1962, 1965), and Deutsch (1967) that middle and lower socioeconomic class children do employ different language codes.

This study aimed to explore the possibility of differential effects of three values of the nonverbal component of communication upon the socio-economic group described in the literature as "the disadvantaged children" who attend the inner-city ghetto schools and upon the middle and lower-middle socio-economic groups who populate the suburban schools. Our research interest was not upon the contrast of effect of one nonverbal channel versus another, e.g. the tonal versus the visual. Rather, this study examines a complex or gestalt of specificied nonverbal behaviors, derived from research findings, that could be combined together as conveyors of a particular "affect-style", i.e. the response of addresses to a given cluster of nonverbal behaviors could lead one to classify these behaviors as negative, or positive, or neutral in communication value.

Unlike earlier laboratory research, this study was a field experiment conducted in an inner-city and in a suburban elementary school. Children were tested in a group situation rather than individually. Employing an inter-system theoretical position with a pragmatic focus upon the effects of a teacher's nonverbal communications upon fourth graders' productivity, this study measured the responses of children from two different socio-economic groups in terms of three tasks that emphasized, (1) accuracy in following directions (a drawing task), (2) accuracy in hearing and extracting information from a verbal context, and (3) spontaneously produced words in a simple essay.

It was assumed that all human face-to-face communication contains both verbal and nonverbal components that are of coordinate importance to the transaction, i.e. neither component simply modifies the other. It was further assumed that the bulk of the human organism's nonverbal communication is learned early, i.e. before school years, and performed thereafter without conscious awareness. Within a particular cultural and/or subcultural group, individuals perform and recognize behaviors that appear in conventional patterns and configurations that possess meaning because they follow traditional, learned rules of "proper" prescribed behavior which the individual, socialized into a given group, understands. It is conceivable that there exists as much variation in nonverbal behaviors, i.e. nonverbal dialects, as in the verbal portion so far as the early learnings of various subcultural groups are concerned.

In order to test these assumptions experimentally, a typology of nonverbal behavioral cues was developed from a review of relevant research findings. This typology specified negative, positive, and neutral values of nonverbal behaviors in three key components of human interaction, i.e. valuation, accommodation, and accessibility. The nonverbal behaviors were arranged in eight categories: distance behavior, eye movements, facial expressions and head nods, body movements and positions, leg movements, vocalizations, and intonation. Guided by the specific behaviors which the typology outlined, an experimental teacher was trained to enact the negative, the positive, and the neutral affect-style as she taught her lesson via a prepared, memorized script. Through this device, the verbal component of the communication was held constant while the nonverbal components were systematically varied. A videotape was made of this teacher using each affect-style. Content analyses of each videotape were obtained through use of 9 rating observation guides used by three trained observers.

Two pilot studies were conducted before the actual experiment, (1) a small sample of ghetto children of comparable age to the intended subjects was tested, using the positive affect-style, to insure that the taped lesson was appropriate, well timed, interesting, etc; (2) the videotapes were reviewed by 82 adult graduate students to assess their evaluation of the treatment conditions, i.e. were they evaluated as negative, positive, and neutral.

Ninety fourth grade children from an inner-city school and ninety from a suburban school were randomly selected and randomly assigned to one of the three treatment conditions in two different experiments, making a total sample of 180 children in 6 treatment groups of 30 each. Achievement data were obtained for the subjects of the inner-city school; intelligence scores for the subjects of the suburban school. Serendipitously, following the experiment, each group of subjects was given an assessment questionnaire to obtain data on subjects' evaluation of the teacher in the videotape.

It was hypothesized that children respond with greater productivity to positive affect than to negative affect, to positive affect than to neutral affect, and to negative affect than to neutral affect. It was further hypothesized that the difference in productivity in response to affect (positive or negative) as opposed to no affect (neutral) is greater among the children from the lower socio-economic backgrounds than among those from the lower-middle socio-economic backgrounds.

Two-way analyses of variance and Tukey multiple comparison procedures were performed. With respect to social socio-economic situation it was found that the white middle and lower-middle class subjects were more productive than black lower class children on all tasks, under all affect-styles. This finding was expected and not of major interest to the thesis. Obviously the combination of race and socio-economic class are confounded in this study by other variables such as I.Q., achievement, differential past experiences, anxiety, etc.

With regard to affect-style it was found that there were no significant effects on any of the tasks for the white middle and lower-middle socio-economic subjects. It was also found that for Task 2, and Task 3 there were no significant affect-style effects for the black lower socio-economic subjects. However, it was found that on Task I, the drawing task, that the black lower socio-economic subjects were more productive in response to the negative affect-style than they were to the positive or neutral affect-style. There was no difference in their responses to the neutral and positive affect-styles.

These findings partially support the findings of Kashinsky and Wiener (1969) and Brooks et al. (1969) so far as a differential response of lower and lower-middle and middle socio-economic groups. Like those studies, the affect-style (non-verbal behavior) made no difference to the middle-class subjects. However, unlike those studies, for the lower socio-economic groups where productivity differences were also found, in this study the negative affect-style rather than the positive elicited the greater productivity.

Serendipitously, from descriptive data obtained from the administration of a crude (from a measurement point of view) post experimental assessment questionnaire preference for the teacher using each of the three affect-styles were obtained. While the lower-middle and middle class subjects seemed to prefer the teacher in positive, negative, and neutral affect-style order, the lower socio-economic group showed no preference among the three affect-styles, except perhaps a slight but not significant preference the neutral affect-style. In general, the children were more "tolerant" and accepting of all affect-styles than were the adults who assessed the three affect-styles. Speculations and possible alternate hypotheses were offered as to the productivity patterns found in this study.

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